29TH ANNUAL STATISTICAL ISSUE

AUTOMOTIVE and Aviation INDUSTRIES

MARCH 15, 1947

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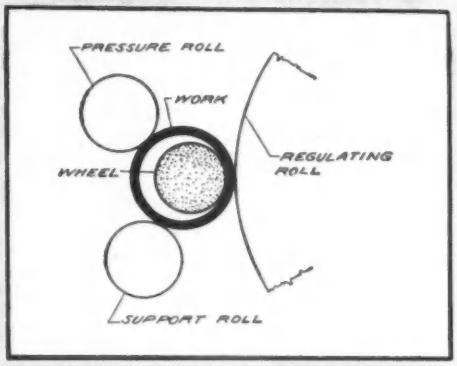

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AUTOMOTIVE and Aviation INDUSTRIES

Published Semi-Monthly March 15, 1947 Vol. 96, No. 6

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Where to Find What You Want to Know

in the

1947 Statistical Issue

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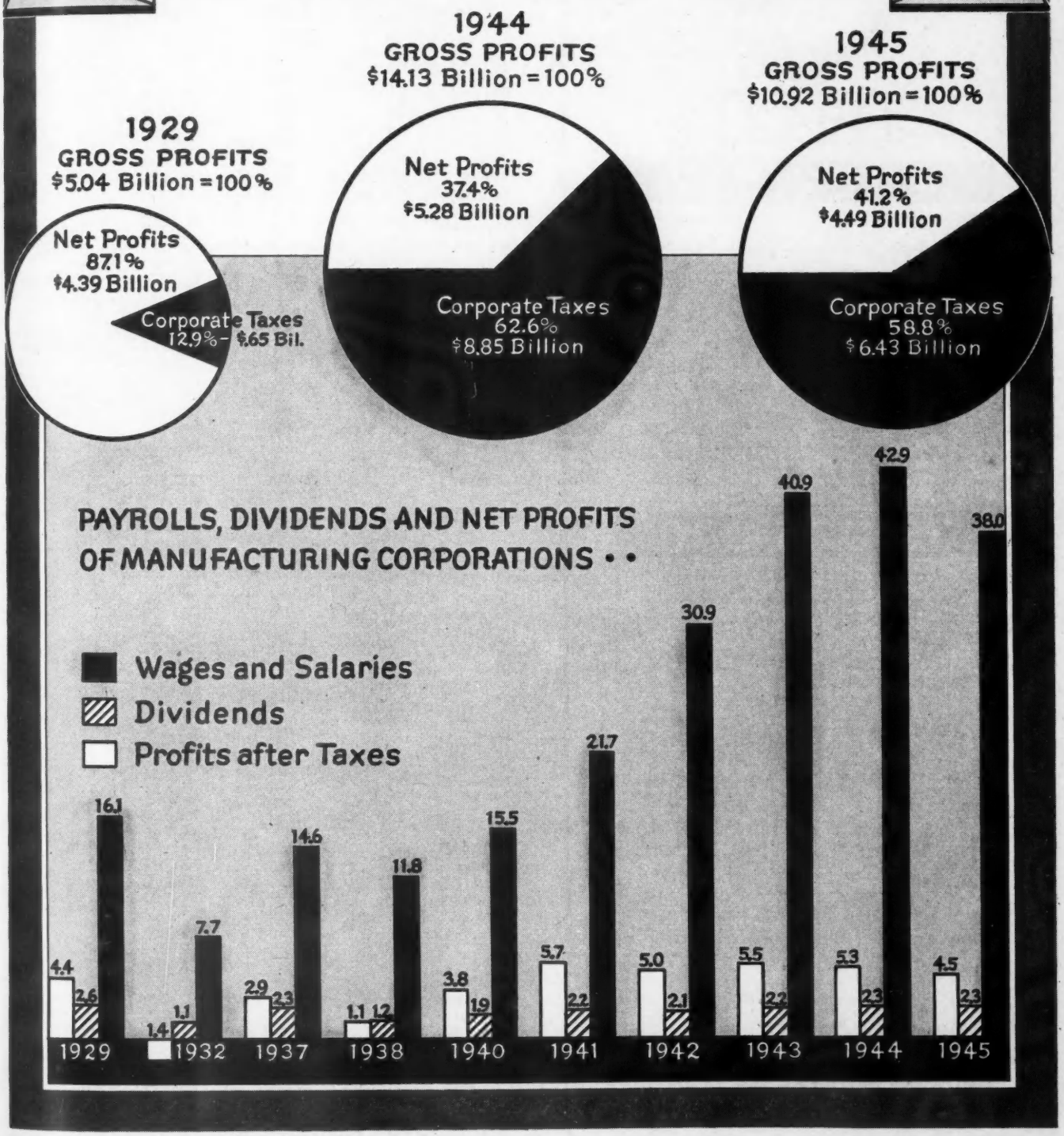
1947

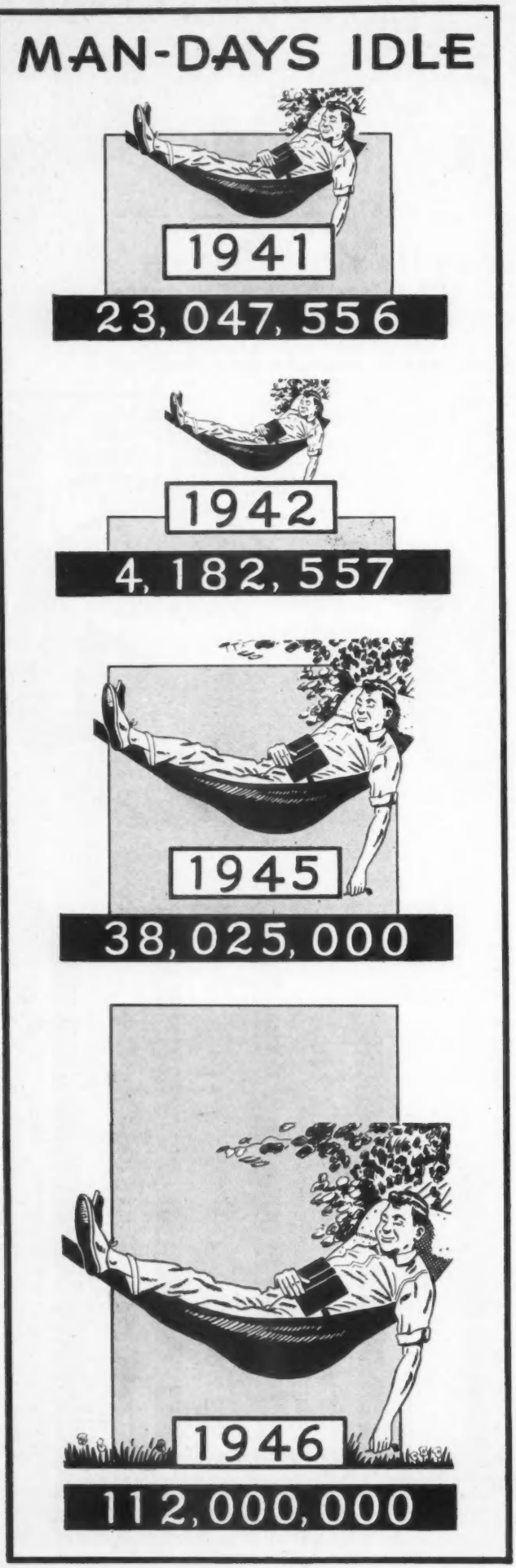
STATISTICAL ISSUE

Corporate Profits, Payrolls and Taxes of Manufacturing Industries



Data from U. S. Department of Commerce.

Figures shown above represent billions of dollars.



Strikes in All Industry*

	Number of Strikes †	Workers Involved †	Man-Days Idle
1942			
January	156	26,929	330,567
February	181	58,122	357,333
March	234	67,292	401,739
April	277	56,038	367,400
May	285	68,820	322,085
June	345	109,611	586,408
July	388	99,676	416,741
August	330	92,226	448,712
September	274	87,904	387,150
October	207	61,593	243,756
November	144	52,481	128,164
December	147	59,269	192,502
Total	2,968	839,961	4,182,557
1943			
January	192	91,214	452,192
February	200	38,841	117,279
March	248	73,943	179,093
April	384	219,186	661,738
May	412	557,558	1,467,728
June	433	186,677	4,698,796
July	369	121,298	695,458
August	310	105,601	356,510
September	237	66,664	209,514
October	287	121,253	1,012,534
November	325	135,804	2,862,607
December	355	263,240	787,080
Total	3,752	1,981,279	13,500,529
1944			
January	330	113,563	710,000
February	340	146,438	459,000
March	386	134,696	441,000
April	453	165,498	614,000
May	589	319,040	1,443,000
June	441	144,566	727,000
July	469	171,529	652,000
August	501	197,930	959,000
September	408	207,407	786,000
October	430	221,939	756,000
November	345	201,396	789,000
December	264	91,686	387,000
Total	4,956	2,115,688	8,723,000
1945			
January	234	46,700	199,000
February	279	111,000	388,000
March	382	196,900	775,000
April	431	305,500	1,472,000
May	433	332,700	2,219,000
June	482	331,600	1,886,000
July	523	325,000	1,769,000
August	447	270,900	1,712,000
September	573	525,600	4,341,000
October	474	550,500	8,611,000
November	358	420,200	6,935,000
December	134	50,400	7,718,000
Total ‡	4,750	3,467,000	38,025,000
1946			
January	325	1,400,000	19,400,000
February	260	130,000	23,000,000
March	385	165,000	13,800,000
April	465	575,000	15,000,000
May	360	560,000	11,500,000
June	350	175,000	3,800,000
July	480	185,000	3,300,000
August	500	235,000	3,425,000
September	450	380,000	5,000,000
October	450	290,000	4,500,000
November	310	450,000	4,750,000
December	.....	.....	.....
Total ‡	4,335	4,545,000	107,475,000

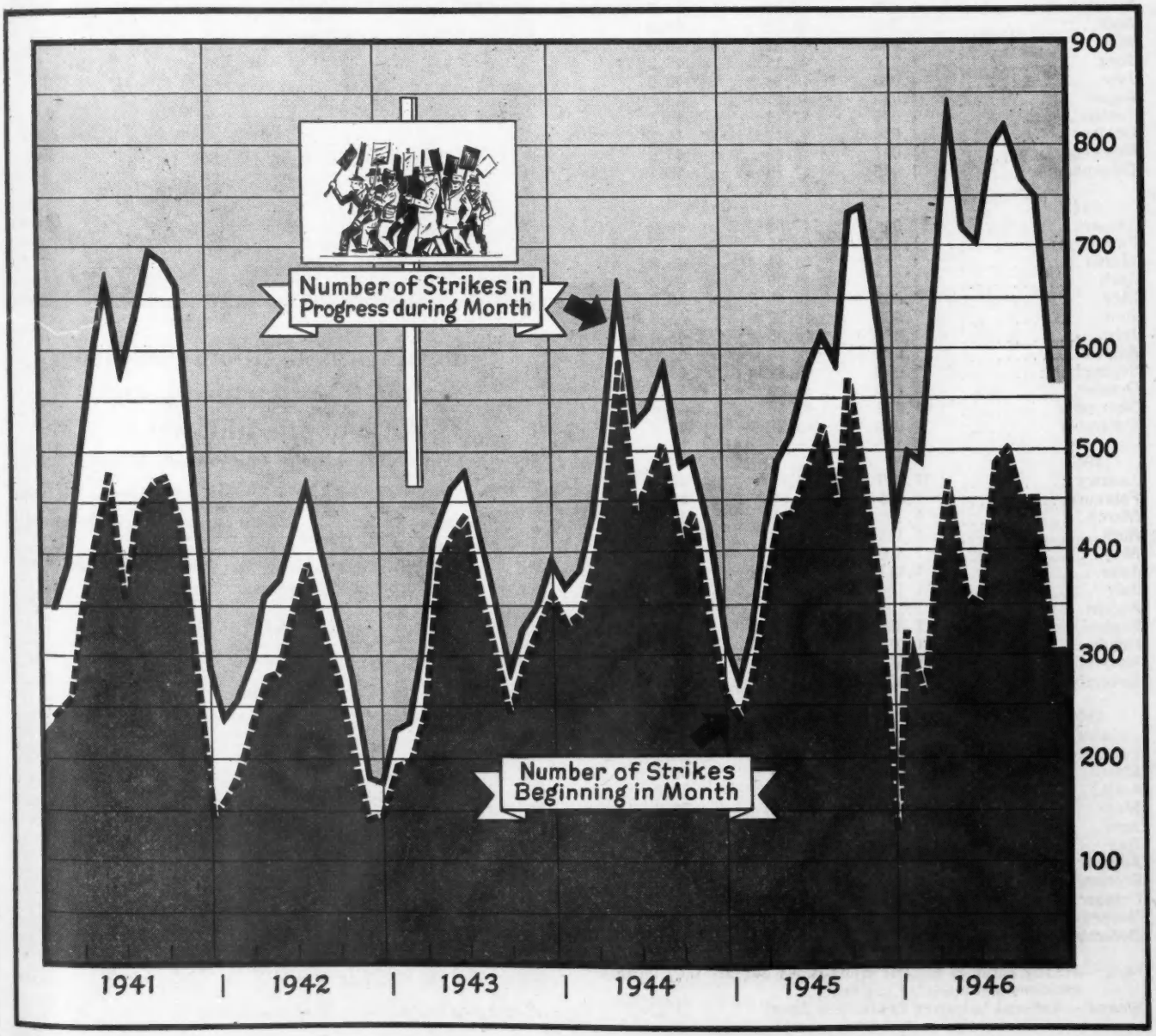
†—Beginning in the month. ‡—Eleven months.
*—Bureau of Labor Statistics.

Strikes in All Industry—By Years—1928-1946*

	Number of				Average Man-Days Lost	
	Strikes†	Workers Involved†	Workers per Strike	Man-Days Idle	Per Strike	Per Worker Involved
1928	604	314,210	520	12,631,863	20,914	40
1929	921	288,572	313	5,351,540	5,811	19
1930	637	182,975	287	3,316,808	5,207	18
1931	810	341,817	422	6,893,244	8,510	20
1932	841	324,210	386	10,502,033	12,488	32
1933	1,695	1,168,272	689	16,872,128	9,954	14
1934	1,856	1,466,695	790	19,591,949	10,556	13
1935	2,014	1,117,213	555	15,456,337	7,674	14
1936	2,172	788,648	363	13,901,956	6,401	18
1937	4,740	1,860,621	393	28,424,857	5,997	15
1938	2,772	688,376	248	9,148,273	3,300	13
1939	2,613	1,170,962	448	17,812,219	6,817	15
1940	2,508	576,988	230	6,700,872	2,672	12
1941	4,288	2,362,620	551	23,047,556	5,375	10
1942	2,968	839,961	283	4,182,557	1,409	5
1943	3,752	1,981,279	528	13,500,529	3,592	7
1944	4,956	2,115,688	427	8,723,000	1,760	4
1945	4,750	3,467,000	730	38,025,000	8,005	11
1946‡	4,335	4,545,000	1,048	107,475,000	24,792	21

‡—Eleven Months. †—Strikes beginning in month or year. *—Bureau of Labor Statistics.

DURATION OF STRIKES INCREASES DURING 1946



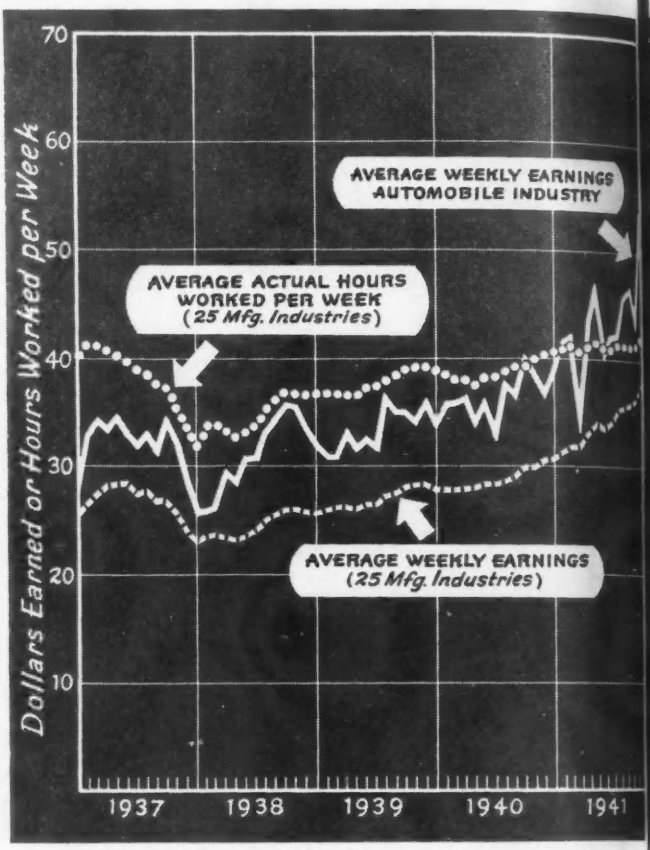
Hourly and Weekly Earnings

IN 25 MANUFACTURING INDUSTRIES

Year and Month	Average Earnings Hourly	Average Earnings Weekly	Average Actual Hours per Week per Wage Earner
1942			
January	$.878	$37.47	42.4
February	.880	37.53	42.4
March	.888	38.14	42.7
April	.896	38.68	42.8
May	.906	39.00	42.7
June	.917	39.52	42.7
July	.928	39.80	42.6
August	.940	40.87	43.2
September	.957	41.79	43.4
October	.958	42.10	43.6
November	.966	42.50	43.7
December	.970	42.98	44.2
1943			
January	$.979	$43.56	44.3
February	.982	43.85	44.5
March	.987	44.30	44.7
April	.998	45.02	44.9
May	1.009	45.92	45.3
June	1.016	46.16	45.2
July	1.020	46.14	45.0
August	1.020	46.25	45.1
September	1.036	47.13	45.3
October	1.036	47.47	45.5
November	1.041	47.58	45.5
December	1.045	47.15	45.1
1944			
January	$1.046	$47.56	45.2
February	1.048	48.15	45.7
March	1.053	48.41	45.8
April	1.057	48.09	45.2
May	1.062	48.46	45.5
June	1.069	49.30	45.9
July	1.072	48.86	45.4
August	1.070	48.98	45.6
September	1.080	49.42	45.6
October	1.079	49.39	45.7
November	1.079	49.42	45.6
December	1.086	49.91	45.8
1945			
January	$1.095	$50.80	46.2
February	1.095	50.58	46.0
March	1.101	50.99	46.1
April	1.101	50.13	45.4
May	1.100	49.62	45.0
June	1.111	50.33	45.2
July	1.106	49.00	44.3
August	1.103	47.73	43.4
September	1.085	45.74	42.3
October	1.079	45.50	42.3
November	1.088	45.42	41.9
December	1.102	45.72	41.7
1946			
January	$1.107	$44.62	40.6
February	1.129	43.56	39.2
March	1.146	46.44	40.7
April	1.165	46.92	40.4
May	1.180	46.16	39.3
June	1.189	47.20	39.8
July	1.194	47.64	40.0
August	1.217	48.74	40.1
September	1.229	49.14	40.0
October	1.231	49.79	40.4
November	1.243	50.14	40.4
December	1.247	50.54	40.6

Note:—Hourly earnings are not Wage Rates because they include overtime and incentive payments.
Source:—National Industrial Conference Board.

TREND OF EARNINGS OF



Earnings and Hours Worked in 25 Manufacturing and Automobile Industries

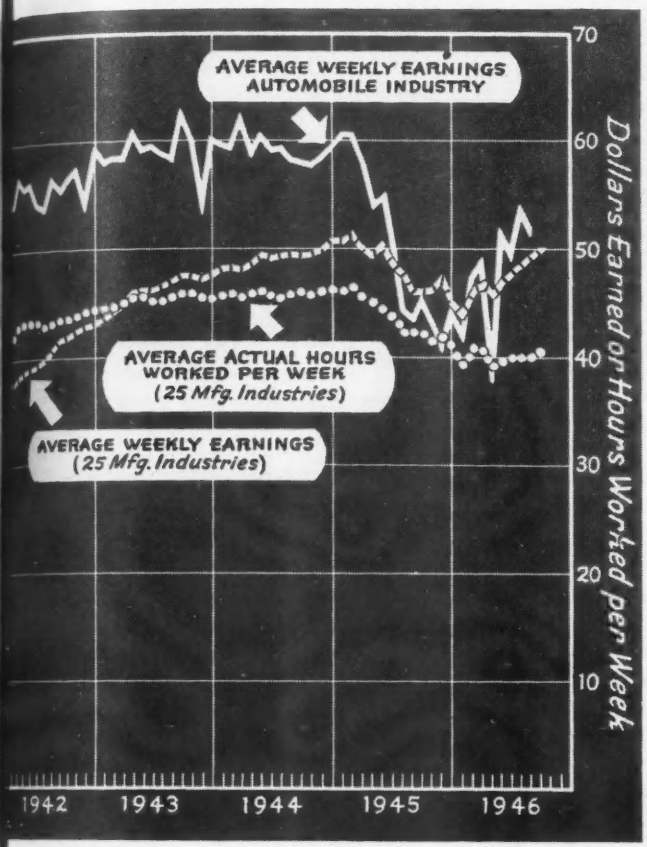
(National Industrial Conferences Board)

Year	Average Hourly Earnings 25 Mfg. Industries	Average Hourly Earnings Automobile Industry	Average Weekly Earnings 25 Mfg. Industries	Average Weekly Earnings Automobile Industry	Average Actual Hours per Week per Wage Earner 25 Mfg. Industries	Average Actual Hours per Week per Wage Earner Automobile Industry
1920(1)	$.606	$.700	$29.39	$32.29	48.2	46.1
1921	.524	.611	23.77	27.30	45.6	44.7
1922(2)	.494	.592	24.29	28.48	49.2	48.2
1923	.541	.632	26.61	30.14	49.2	47.7
1924	.562	.655	26.43	29.66	46.9	45.3
1925	.561	.655	27.08	31.01	48.2	47.3
1926	.568	.659	27.42	31.43	48.1	47.7
1927	.576	.676	27.53	31.36	47.7	46.4
1928	.579	.681	27.80	32.51	47.9	47.7
1929	.590	.695	28.55	32.48	48.3	46.6
1930	.589	.697	25.84	27.77	43.9	39.9
1931	.564	.681	22.62	25.13	40.4	36.9
1932	.498	.609	17.05	18.50	34.8	30.4
1933	.491	.609	17.71	21.84	36.4	36.0
1934	.580	.713	20.06	23.64	34.7	33.2
1935	.599	.752	22.23	28.04	37.2	37.4
1936	.619	.791	24.39	29.81	39.5	37.7
1937	.695	.916	26.80	32.31	38.7	35.3
1938	.716	.953	24.43	30.77	34.3	32.3
1939	.720	.953	27.04	33.28	37.6	34.9
1940	.739	.971	28.54	36.24	38.6	37.3
1941	.814	1.086	33.62	42.34	41.2	39.0
1942	.924	1.248	40.03	55.55	43.0	44.5
1943	1.014	1.295	45.88	58.95	45.0	45.5
1944	1.067	1.312	48.83	59.20	45.6	45.1
1945	1.097	1.277	48.46	50.78	44.2	39.7
1946	1.190	1.366	47.57	50.24	40.1	36.7

(1)—Average of seven months. (2)—Average of six months.

and Hours Worked Per Week

PRODUCTION WORKERS



Employment, Earnings and Hours Worked in Automobile Industry

(Bureau of Labor Statistics and Census of Mfrs.)

Year	Average Employment (000)	Total Payrolls (000)	Average Weekly Earnings	Average Hrs. Worked per Week
1899	2	$1,321	$11.30	....
1904	12	7,159	11.40	....
1909	76	48,694	12.40	....
1914	127	101,927	15.40	....
1919	343	491,121	27.50	....
1921	213	318,753	29.80	....
1923	427	711,308	32.00	....
1924	396	639,600	30.90	....
1925	449	769,340	33.00	....
1926	445	741,312	32.00	....
1927	390	659,776	32.50	....
1928	459	805,168	33.70	....
1929	471	788,892	32.20	46.8
1930	341	464,880	28.20	39.9
1931	302	377,820	24.00	36.9
1932	257	273,832	21.22	31.2
1933	257	270,556	20.81	35.1
1934	380	467,460	23.24	33.2
1935	408	597,444	27.24	37.0
1936	430	671,528	29.72	38.4
1937	505	814,320	31.90	35.8
1938	306	468,328	30.34	32.8
1939	402	651,976	32.91	35.4
1940	465	824,096	35.76	37.7
1941	570	1,173,536	41.25	39.6
1942	510	1,345,656	51.94	44.4
1943	714	2,094,144	56.94	46.2
1944	732	2,186,000	57.82	45.5
1945	590	1,614,293	51 99	41.3
1946P	637	1,641,328	49.84	37.4

Note: Data cover motor vehicles, bodies and parts factories, includes employment in government-owned, privately operated plants.
P—Preliminary

IN THE AUTOMOBILE INDUSTRY *

Year and Month	Average Earnings		Average Actual Hours per Week per Wage Earner
	Hourly	Weekly	
1942			
January	$1.251	$54.21	43.3
February	1.244	54.48	43.8
March	1.246	56.63	45.5
April	1.242	56.12	45.2
May	1.245	56.20	45.2
June	1.237	54.78	44.3
July	1.242	54.17	43.6
August	1.235	56.65	45.9
September	1.260	55.43	44.0
October	1.239	56.51	45.6
November	1.273	57.44	45.1
December	1.266	53.93	42.6
1943			
January	$1.299	$59.56	45.9
February	1.280	58.20	45.5
March	1.282	58.33	45.5
April	1.279	58.39	45.6
May	1.298	60.88	46.9
June	1.302	59.16	45.4
July	1.301	59.60	45.8
August	1.289	58.88	45.7
September	1.312	58.52	44.6
October	1.303	62.59	48.0
November	1.310	59.52	45.4
December	1.283	53.71	41.9
1944			
January	$1.295	$60.25	46.5
February	1.299	59.78	46.0
March	1.303	59.54	45.7
April	1.309	62.07	47.4
May	1.320	58.30	44.2
June	1.320	60.17	45.6
July	1.329	59.13	44.5
August	1.317	59.19	44.9
September	1.315	58.09	44.2
October	1.305	57.91	44.4
November	1.316	57.69	43.8
December	1.318	58.24	44.2
1945			
January	$1.329	$59.17	44.5
February	1.291	60.22	46.6
March	1.309	60.04	45.9
April	1.303	57.86	44.4
May	1.279	53.67	42.0
June	1.290	55.06	42.7
July	1.279	49.95	39.1
August	1.266	44.02	34.8
September	1.257	43.08	34.3
October	1.244	45.51	36.6
November	1.237	39.68	32.1
December	1.244	41.14	33.1
1946			
January	$1.262	$44.98	35.6
February	1.292	43.10	33.4
March	1.302	46.99	36.1
April	1.327	48.81	36.8
May	1.371	45.06	32.9
June	1.393	51.73	37.1
July	1.395	49.94	35.8
August	1.399	54.32	38.8
September	1.409	51.61	36.6
October	1.396	53.81	38.5
November	1.420	53.42	37.6
December	1.421	53.83	37.9

Note:—Hourly earnings are not Wage Rates because they include overtime and incentive payments.
*—National Industrial Conference Board.

EARNINGS AND HOURS WORKED—
By Years and Manufacturing Industries

Average Actual Weekly Earnings in Manufacturing Industries

INDUSTRY	1929	1932	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
Agricultural Implement	$31.02	$17.96	$31.08	$28.06	$30.53	$32.13	$37.59	$43.47	$50.55	$53.54	$52.22	$49.24
Automobile	32.48	18.50	32.31	30.77	33.26	36.24	42.34	55.55	58.95	59.20	50.78	50.24
Boot and Shoe	22.16	16.67	20.89	17.78	18.73	18.19	22.39	25.99	27.98	31.01	34.90	36.13
Chemical	28.87	19.68	28.74	27.97	29.74	31.39	34.85	(a)	47.95	49.25	48.70	47.17
Cotton—North	20.20	14.10	19.44	17.89	18.56	19.14	22.47	28.21	32.51	33.94	36.98	40.03
Electrical Manufacturing	29.98	17.43	29.32	27.06	30.37	33.03	39.60	46.55	49.56	52.40	51.22	50.37
Furniture	25.82	15.04	24.95	23.00	25.38	26.77	31.97	37.01	45.32	46.97	46.93	47.60
Hosiery and Knit Goods	23.58	15.26	20.30	19.46	20.08	19.85	21.42	25.51	31.42	33.81	35.51	38.84
Iron and Steel	35.90	14.51	29.92	22.91	29.09	30.69	36.92	40.41	48.81	55.23	55.01	47.00
Leather Tanning and Finishing	24.91	18.74	23.67	22.57	24.84	24.61	28.66	33.25	36.85	41.17	45.17	46.26
Lumber and Millwork	26.32	14.97	25.90	25.36	27.12	28.16	32.48	40.25	48.08	49.95	49.13	49.93
Meat Packing	26.12	20.77	26.75	28.13	27.94	27.77	29.25	32.61	40.56	46.56	45.36	45.29
Paint and Varnish	30.17	21.43	28.32	27.61	29.23	29.45	32.76	(a)	44.37	48.32	48.16	46.33
Paper and Pulp	28.21	18.98	26.06	24.83	26.10	27.52	31.26	35.21	41.29	43.84	45.50	46.89
Paper Products	26.23	19.03	23.26	23.08	24.42	24.74	27.61	31.04	35.57	37.35	39.20	41.71
Printing—Book and Job	33.34	27.31	30.27	30.09	32.28	33.33	34.79	36.83	41.22	45.45	49.13	55.31
Printing—News and Magazines	40.35	33.17	34.55	34.71	35.72	36.43	37.51	39.61	43.82	47.58	51.30	57.77
Rubber	29.58	19.87	28.16	25.52	30.65	31.01	35.65	41.41	51.24	56.25	55.61	51.61
Silk and Rayon	23.25	14.94	18.22	16.96	18.23	18.24	20.80	25.86	30.69	33.92	36.89	40.14
Wool	22.39	15.09	21.03	19.62	21.31	22.34	27.44	32.42	37.80	39.57	40.86	44.43
Foundries and Machine Shops	30.00	15.77	28.85	24.98	28.53	31.56	38.93	47.51	53.14	56.35	55.08	50.91

Source—National Industrial Conference Board.
(a)—A change in sample in middle of 1942, hence no average.

Average Actual Hourly Earnings in Manufacturing Industries

Note: Hourly Earnings are not wage rates, because they include overtime and incentive payments.

INDUSTRY	1929	1932	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
Agricultural Implement	$.625	$.546	$.777	$.800	$.805	$.818	$.905	$1.003	$1.087	$1.137	$1.154	$1.234
Automobile	.695	.609	.916	.953	.953	.971	1.086	1.248	1.295	1.312	1.277	1.367
Boot and Shoe	.501	.405	.546	.542	.519	.538	.590	.669	.701	.740	.831	.918
Chemical	.574	.485	.722	.748	.758	.787	.849	(a)	1.057	1.089	1.115	1.222
Cotton—North	.420	.333	.514	.500	.491	.511	.564	.671	.748	.777	.833	.950
Electrical Manufacturing	.627	.594	.756	.801	.796	.814	.904	1.012	1.067	1.132	1.151	1.237
Furniture	.551	.448	.619	.653	.661	.681	.757	.850	.953	1.004	1.042	1.128
Hosiery and Knit Goods	.496	.397	.556	.573	.547	.559	.577	.666	.768	.819	.869	.983
Iron and Steel	.654	.531	.818	.830	.841	.850	.957	1.037	1.135	1.183	1.246	1.349
Leather Tanning and Finishing	.524	.459	.621	.635	.643	.658	.708	.803	.859	.907	.992	1.096
Lumber and Millwork	.580	.412	.660	.692	.704	.726	.797	.927	1.060	1.094	1.112	1.218
Meat Packing	.516	.431	.672	.695	.696	.693	.748	.817	.879	.928	.935	1.094
Paint and Varnish	.583	.517	.689	.707	.718	.732	.789	(a)	.973	1.014	1.043	1.134
Paper and Pulp	.541	.468	.620	.645	.641	.668	.725	.817	.876	.900	.929	1.055
Paper Products	.530	.464	.568	.603	.611	.628	.666	.752	.807	.850	.890	1.003
Printing—Book and Job	.725	.710	.749	.790	.823	.826	.846	.884	.961	1.053	1.099	1.261
Printing—News and Magazines	.884	.786	.912	.950	.966	.978	.987	1.019	1.088	1.148	1.217	1.397
Rubber	.661	.599	.847	.841	.863	.876	.927	1.010	1.125	1.208	1.234	1.324
Silk and Rayon	.487	.385	.516	.526	.518	.529	.554	.639	.728	.778	.841	.966
Wool	.483	.385	.608	.608	.595	.623	.688	.794	.879	.913	.946	1.067
Foundries and Machine Shops	.608	.524	.699	.728	.738	.761	.850	.999	1.109	1.189	1.205	1.246

Source—National Industrial Conference Board. (a)—A change in sample in middle of 1942, hence no average.

Average Actual Hours Worked per Week per Wage Earner by Years

INDUSTRY	1929	1932	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
Agricultural Implement	49.6	32.9	40.0	35.1	37.9	39.3	41.6	43.3	46.5	47.1	45.2	39.9
Automobile	46.8	30.4	35.3	32.3	34.9	37.3	39.0	44.5	45.5	45.1	39.7	36.7
Boot and Shoe	44.2	41.1	38.3	32.8	36.1	33.8	38.0	38.8	40.0	41.9	42.0	39.4
Chemical	50.4	40.7	39.8	37.4	39.3	39.9	41.0	(a)	44.5	45.2	43.7	38.6
Cotton—North	48.2	42.5	37.9	35.7	37.8	37.5	39.8	42.0	43.4	43.7	44.1	42.1
Electrical Manufacturing	47.4	29.4	38.8	33.8	38.2	40.6	43.8	46.0	46.4	46.3	44.5	40.7
Furniture	46.9	33.6	40.4	35.3	38.4	39.3	42.2	43.5	47.5	46.8	45.0	42.2
Hosiery and Knit Goods	47.6	38.5	36.6	34.0	36.7	35.5	37.1	38.2	40.9	41.3	40.9	39.5
Iron and Steel	54.9	27.2	38.6	27.6	34.6	36.1	38.6	39.0	43.0	48.7	44.1	34.9
Leather Tanning and Finishing	47.6	40.9	38.2	35.6	38.6	37.4	40.5	41.4	42.9	45.4	45.6	42.3
Lumber and Millwork	45.4	36.4	39.3	36.6	38.5	38.8	40.7	43.3	45.3	45.7	44.2	41.0
Meat Packing	50.6	48.2	39.8	40.5	40.1	40.1	39.1	39.9	46.1	50.2	48.5	41.6
Paint and Varnish	51.8	41.4	41.2	39.0	40.7	40.3	41.5	(a)	45.6	47.7	46.2	40.9
Paper and Pulp	52.1	40.6	42.1	38.5	40.7	41.2	43.1	43.1	47.1	48.7	49.0	44.5
Paper Products	49.5	41.1	41.0	38.3	40.0	39.4	41.4	41.3	44.1	44.0	44.1	41.6
Printing—Book and Job	46.0	38.5	40.4	38.1	39.2	40.3	41.1	41.6	42.9	43.1	44.7	43.9
Printing—News and Magazines	45.7	42.1	37.9	36.6	37.0	37.3	38.0	38.8	40.2	41.4	42.2	41.3
Rubber	44.8	33.1	33.3	30.3	35.5	35.4	38.5	40.9	45.5	46.6	45.0	39.0
Silk and Rayon	47.8	38.9	35.3	32.3	35.2	34.4	37.6	40.4	42.1	43.6	43.9	41.6
Wool	46.4	39.3	34.7	32.4	35.8	35.9	39.9	40.8	43.0	43.4	43.2	41.6
Foundries and Machine Shops	49.4	30.1	41.4	34.3	38.6	41.4	45.8	47.6	47.9	47.4	45.7	40.9

Source—National Industrial Conference Board.
(a)—A change in sample in middle of 1942, hence no average.

FEDERAL DEBT AND CORPORATE PROFITS

Direct Debt of the U. S. Government

(Gross Debt in Thousands of Dollars)

Year Ending June 30	Gross Debt	Debt per Capita
1900	$1,263,000	$ 16.56
1905	1,132,357	13.60
1910	1,146,940	12.69
1915	1,191,264	11.83
1916	1,225,146	11.96
1917	2,975,619	28.57
1918	12,243,629	115.65
1919	25,482,034	240.09
1920	24,297,918	228.32
1921	23,976,251	221.09
1922	22,964,079	208.97
1923	22,349,688	200.10
1924	21,251,120	186.86
1925	20,516,272	177.82
1926	19,643,183	167.70
1927	18,510,174	156.04
1928	17,604,291	146.69
1929	16,931,198	139.40
1930	16,185,308	131.49
1931	16,801,485	135.37
1932	19,487,010	155.93
1933	22,538,672	179.21
1934	27,053,086	213.65
1935	28,701,167	225.07
1936	33,545,385	261.20
1937	36,427,091	281.82
1938	37,167,487	285.43
1939	40,445,417	308.34
1940	42,971,044	325.66
1941	48,978,919	367.68
1942	72,495,183	540.68
1943	136,696,000	1,007.64
1944	201,003,000	1,456.00
1945	258,862,000	1,854.00
1946	269,422,000	1,910.00

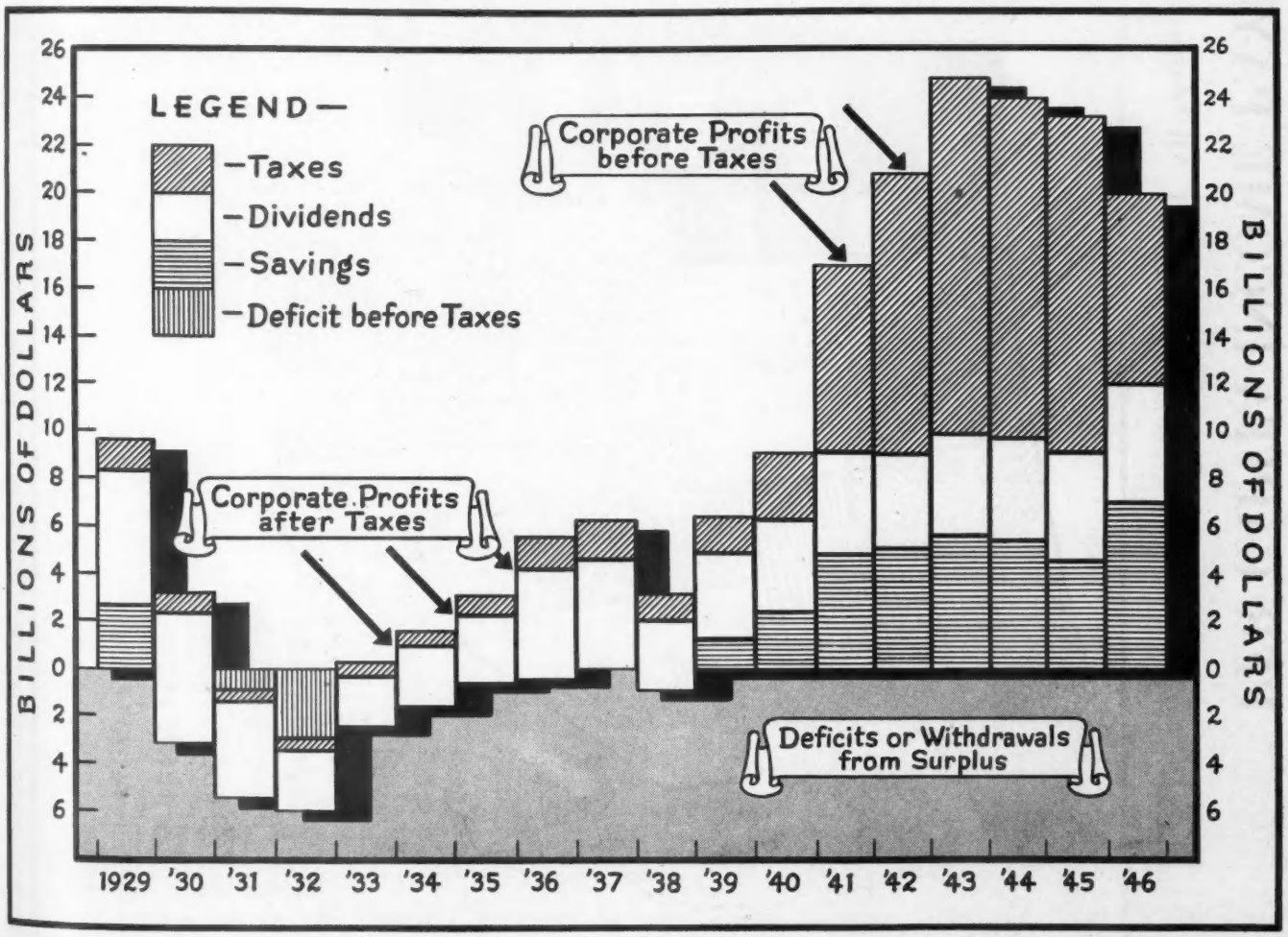
1946 Net Corporate Profits Up 3 Billion from 1945

(Millions of Dollars)

	Corporate Profits Before Taxes	Taxes	Corporate Profits After Taxes	Dividends	Savings
1929	$9,685	$1,433	$8,252	$5,700	$2,552
1930	3,203	877	2,326	5,434	=3,108
1931	−805	519	−1,324	4,100	=5,424
1932	−3,054	389	−3,443	2,592	=6,035
1933	123	543	−420	2,057	=2,477
1934	1,634	774	860	2,550	=1,690
1935	3,085	953	2,132	2,773	=641
1936	5,609	1,447	4,162	4,518	=356
1937	6,119	1,551	4,568	4,631	= 63
1938	3,038	1,082	1,956	2,918	=962
1939	6,241	1,506	4,735	3,599	1,136
1940	9,049	2,937	6,112	3,831	2,281
1941	16,976	7,909	9,067	4,291	4,776
1942	20,888	11,790	9,098	4,115	4,983
1943	24,838	14,963	9,875	4,224	5,651
1944	24,001	14,320	9,681	4,377	5,304
1945	20,815	11,795	9,020	4,472	4,548
1946	20,000	8,000	12,000	5,000	7,000

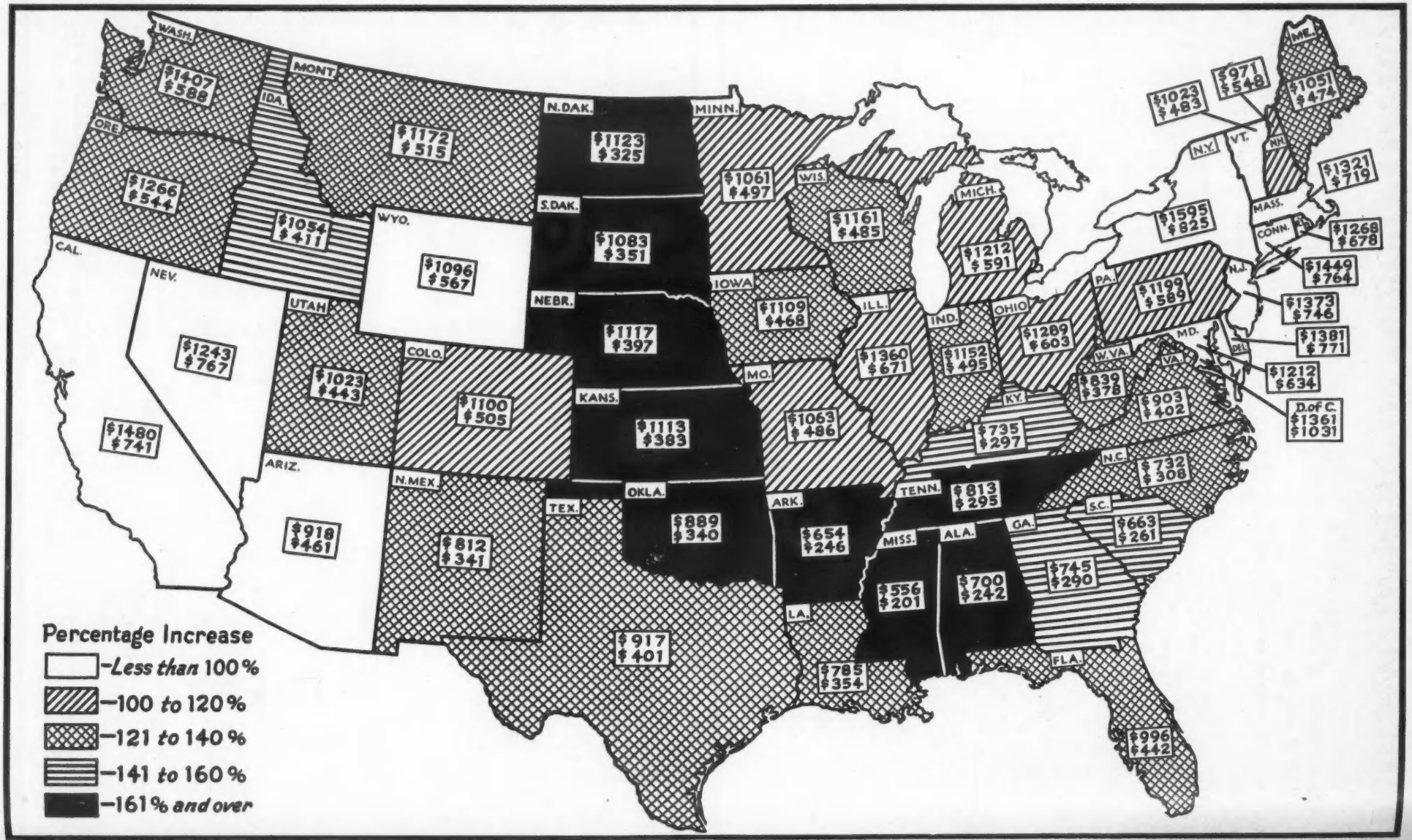
— Deficit. = Withdrawals from Surplus.
Source: National Income Unit, Department of Commerce.

TAXES, DIVIDENDS AND SAVINGS OF ALL CORPORATIONS

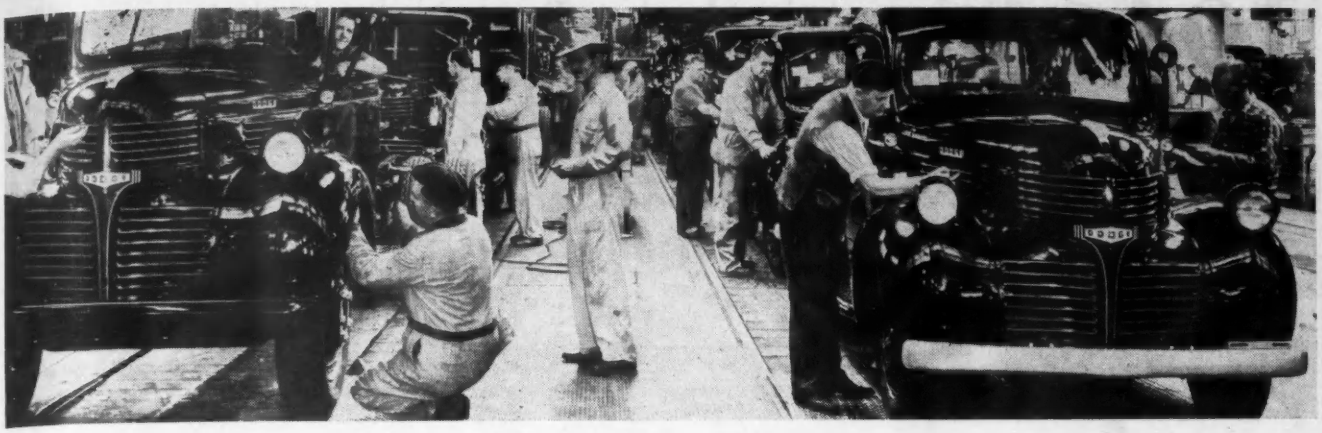


PER CAPITA INCOME PAYMENTS TO INDIVIDUALS

Substantial Increases for All States in 1945 as Compared With 1939



Source of Data—U. S. Department of Commerce.



92 Million Motor Vehicles Produced in 47 Years

Factory Sales and Their Wholesale Value, U. S. Plants

YEAR	PASSENGER CARS			TRUCKS AND BUSES			TOTAL	
	Number of Units	Wholesale Value	Average Wholesale Price	Number of Units†	Wholesale Value†	Average Wholesale Price	Number of Units	Wholesale Value
1900	4,912	$4,899,443	$997	.....	.....	....	4,192	$4,889,443
1901	7,000	8,183,000	1169	.....	.....	....	7,000	8,183,000
1902	9,000	10,395,000	1155	.....	.....	....	9,000	10,395,000
1903	11,235	13,000,000	1157	.....	.....	....	11,235	13,000,000
1904	22,130	23,357,692	1055	700	$1,272,747	$1818	22,830	24,630,439
1905	24,250	38,670,000	1594	750	1,330,000	1773	25,000	40,000,000
1906	33,200	61,460,000	1851	800	1,440,000	1800	34,000	62,900,000
1907	43,000	91,620,000	2131	1,000	1,780,000	1780	44,000	93,400,000
1908	63,500	135,250,000	2129	1,500	2,550,000	1700	65,000	137,800,000
1909	123,990	159,765,721	1288	3,297	5,333,683	1617	127,287	165,099,404
1910	181,000	215,340,000	1189	6,000	9,660,000	1610	187,000	225,000,000
1911	199,319	225,000,000	1128	10,681	21,000,000	1966	210,000	246,000,000
1912	356,000	335,000,000	941	22,000	43,000,000	1954	378,000	378,000,000
1913	461,500	399,902,000	866	23,500	44,000,000	1872	485,000	443,902,000
1914	548,139	420,838,378	768	24,900	44,219,096	1775	573,039	465,057,474
1915	895,930	575,978,000	643	74,000	125,800,000	1700	969,930	701,778,000
1916	1,525,578	921,378,000	604	92,130	161,000,000	1747	1,617,708	1,082,378,000
1917	1,745,792	1,053,505,781	603	128,157	220,982,668	1724	1,873,949	1,274,488,449
1918	943,436	801,937,925	850	227,250	434,168,992	1910	1,170,686	1,236,106,917
1919	1,651,625	1,365,395,415	827	224,731	371,422,820	1652	1,876,356	1,736,818,235
1920	1,905,560	1,809,170,963	949	321,789	423,249,410	1315	2,227,349	2,232,420,373
1921	1,468,067	1,038,191,037	707	148,052	166,070,810	1122	1,616,119	1,204,261,847
1922	2,274,185	1,494,513,991	657	269,991	226,049,658	837	2,544,176	1,720,563,649
1923	3,624,717	2,196,272,116	606	409,295	308,537,929	754	4,034,012	2,504,810,045
1924	3,185,881	1,970,096,559	618	416,659	318,580,580	765	3,602,540	2,288,677,139
1925	3,735,171	2,458,370,026	658	530,659	458,400,277	864	4,265,830	2,916,770,303
1926	3,783,987	2,640,064,519	698	316,947	452,123,435	875	4,300,934	3,092,187,954
1927	2,936,533	2,164,670,891	737	464,793	420,130,624	904	3,401,326	2,584,801,515
1928	3,815,417	2,576,489,623	675	543,342	437,132,258	804	4,358,759	3,013,621,881
1929	4,587,400	2,847,118,562	621	771,020	566,029,644	734	5,358,420	3,413,148,206
1930	2,784,745	1,645,398,523	591	571,241	389,436,690	682	3,355,986	2,034,835,213
1931	1,973,090	1,111,273,774	563	416,648	262,417,542	630	2,389,738	1,373,691,316
1932	1,135,491	618,291,168	544	235,187	136,193,336	579	1,370,678	754,484,504
1933	1,573,512	762,736,512	485	346,545	186,069,314	537	1,920,057	948,805,826
1934	2,177,919	1,147,116,195	527	575,192	320,143,667	556	2,753,111	1,467,259,862
1935	3,252,244	1,709,425,904	526	694,690	379,407,751	546	3,946,934	2,088,833,655
1936	3,669,528	2,015,646,217	549	784,587	462,820,474	590	4,454,115	2,478,466,691
1937	3,915,889	2,304,349,252*	588	893,085	542,921,096*	608	4,808,974	2,847,270,348*
1938	2,000,985	1,269,765,050*	634	488,100	339,226,639*	695	2,489,085	1,608,991,689*
1939	2,866,796	1,816,434,914*	634	710,496	502,421,776*	707	3,577,292	2,318,856,690*
1940	3,717,385	2,441,513,000*	657	754,901	577,012,000*	764	4,472,286	3,018,525,000*
1941	3,779,682	2,673,957,000*	707	1,060,820	1,087,592,000*	1025	4,840,502	3,761,549,000*
1942	222,862	174,083,000*	781	818,662	1,436,162,000*	1754	1,041,524	1,610,245,000*
1943‡	139	109,000*	....	699,689	1,453,467,000*	....	699,828	1,453,576,000*
1944‡	610	476,000*	....	737,524	1,712,356,000*	....	738,134	1,712,832,000*
1945	69,532	60,603,000*	872	655,683	1,219,957,000*	1861	725,215	1,280,560,000*
1946P	2,148,677	2,071,000,000*	964	940,830	1,158,000,000*	1231	3,089,507	3,229,000,000*

Note: Table above includes sales of military vehicles. Prior to 1940 station wagons and other vehicles built on passenger car chassis are included with trucks. In 1940 and later years such vehicles built on passenger car chassis are included with passenger cars.
*Includes Federal Excise Taxes and standard equipment.
P—Preliminary values.

†A substantial part of the trucks reported comprises chassis only, without bodies; hence, the value of bodies for these chassis are not included.
‡Actual value of passenger car factory sales for 1943 and 1944 are not available. Value figures are approximations based on the average value per unit in 1942. While production of passenger cars ended in February, 1942, some vehicles remained in factory stocks to be sold under rationing orders in 1943 and 1944.

Source of Data—U. S. Department of Commerce.

1946 Motor-Vehicle Factory Sales to Domestic and Foreign Markets

1946 Passenger Car Factory Sales Only 56.8 Per Cent of 1941

Factory Sales from U. S. Plants*

	Passenger Cars	Trucks	Buses	Total
January	56,367	45,033	467	101,867
February	57,784	34,993	265	93,042
March	85,810	37,866	327	124,003
April	132,631	80,771	948	214,350
May	166,942	75,373	789	243,104
June	141,090	60,038	774	201,902
July	209,180	87,591	862	297,633
August	247,261	97,881	1,067	346,209
September	232,280	95,682	833	328,795
October	283,586	107,166	975	391,727
November	269,081	100,929	1,146	371,156
December	268,665	107,616	1,438	376,719
Total	2,148,677	930,739	10,891	3,089,867

Factory Sales to Domestic and Foreign Markets

	Passenger Cars		Trucks		Buses	
	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign
January	53,441	2,926	37,970	7,063	436	31
February	54,111	3,673	26,787	8,206	230	35
March	80,239	5,571	29,125	8,541	443	84
April	125,765	6,866	62,529	18,242	854	94
May	158,344	8,598	59,947	15,426	741	48
June	131,284	9,806	50,247	9,791	751	23
July	195,158	14,022	72,102	15,489	833	29
August	229,083	18,178	78,283	19,598	867	200
September	218,645	13,635	77,501	18,181	758	75
October	263,236	20,350	88,207	18,959	923	52
November	250,379	18,702	79,138	21,791	1,102	44
December	244,931	21,734	82,774	24,842	1,339	99
Total	2,004,616	144,061	744,610	186,129	9,277	814

Motor Truck Factory Sales by Gross Vehicle Weight

TOTAL

	5,000 & Less	5,001–10,000	10,001–14,000	14,001–16,000	16,001–19,500	19,501–26,000	Over 26,000	Total
January	18,535	3,877	9,058	8,499	1,646	2,136	1,282	45,033
February	13,758	3,100	9,436	4,624	1,230	1,760	1,085	34,993
March	16,821	2,002	8,451	7,791	441	1,223	937	37,866
April	26,925	5,013	29,795	14,669	1,720	1,691	958	80,771
May	26,209	5,833	22,884	15,635	2,002	1,729	1,081	75,373
June	32,890	4,795	12,754	5,555	1,556	1,469	1,019	60,038
July	30,618	7,125	23,209	21,633	2,301	1,791	914	87,591
August	34,987	6,744	28,281	23,189	1,853	1,858	969	97,881
September	32,605	9,188	28,687	20,074	2,066	2,076	986	95,682
October	35,933	14,745	26,659	21,754	3,082	3,387	1,606	107,166
November	30,520	12,424	22,971	27,438	3,377	2,878	1,321	100,929
December	30,929	13,389	25,727	29,713	2,888	3,254	1,716	107,616
Total	330,730	88,235	247,912	200,574	24,162	25,252	13,874	930,739

DOMESTIC MARKET

January	17,331	3,151	6,713	6,457	1,160	1,950	1,208	37,970
February	11,822	2,783	5,481	3,156	948	1,569	1,028	26,787
March	14,433	1,719	5,012	5,630	355	1,104	872	29,125
April	23,956	4,508	18,098	11,985	1,525	1,547	910	62,529
May	23,122	5,406	13,381	13,819	1,635	1,576	1,008	59,947
June	29,657	4,396	8,266	4,412	1,279	1,309	928	50,247
July	26,611	6,602	17,189	17,375	1,860	1,610	855	72,102
August	30,210	6,072	21,284	16,841	1,324	1,627	925	78,283
September	29,372	8,263	20,454	12,932	1,671	1,862	947	77,501
October	32,198	13,167	21,870	13,672	2,540	3,137	1,523	88,207
November	26,208	10,794	17,014	18,754	2,665	2,476	1,227	79,138
December	26,888	12,023	17,879	19,269	2,351	2,734	1,630	82,774
Total	291,808	78,884	174,741	144,302	19,313	22,501	13,061	744,610

FOREIGN MARKETS

January	1,204	726	2,345	2,042	486	186	74	7,063
February	1,936	317	3,955	1,468	282	191	57	8,206
March	2,388	283	3,439	2,161	86	119	65	8,541
April	2,969	505	11,697	2,684	195	144	48	18,242
May	3,087	427	9,503	1,816	367	153	73	15,426
June	3,233	399	4,488	1,143	277	160	91	9,791
July	4,007	523	6,020	4,258	441	181	59	15,489
August	4,777	672	6,997	6,348	529	231	44	19,598
September	3,233	925	6,233	7,142	395	214	39	18,181
October	3,735	1,578	4,689	8,082	542	250	83	18,959
November	4,312	1,630	5,957	8,684	712	402	94	21,791
December	4,041	1,366	7,848	10,444	537	520	86	24,842
Total	38,922	9,351	73,171	56,272	4,849	2,751	813	186,129

*Source of data—Automobile Manufacturers Association.

Motor Vehicle Production in Canada†

Number of Units and Their Wholesale Value

Year	Passenger Cars			Trucks			Total	
	Number of Units	Wholesale Value	Average Wholesale Value	Number of Units	Wholesale Value	Average Wholesale Value	Number of Units	Wholesale Value
1921	61,098	$53,561,415	$876	5,148	$3,843,288	$746	66,246	$57,404,703
1922	92,838	67,226,654	724	8,169	5,232,405	640	101,007	72,459,059
1923	127,976	78,282,372	612	19,226	8,941,011	465	147,202	87,223,383
1924	114,537	70,609,960	616	18,043	8,125,916	450	132,580	78,735,876
1925	135,573	86,158,773	635	26,397	12,234,486	463	161,970	98,393,259
1926	166,887	106,000,203	635	37,840	16,629,334	439	204,727	122,629,537
1927	146,421	100,962,211	689	32,633	14,942,017	458	179,054	115,904,228
1928	197,848	127,263,877	643	44,206	21,913,122	496	242,054	149,176,999
1929	203,307	134,023,280	659	59,318	29,474,395	497	262,625	163,497,675
1930	121,337	75,253,581	620	32,035	16,513,225	515	153,372	91,766,806
1931	65,072	42,634,173	655	17,487	10,330,763	591	82,559	52,964,936
1932	50,694	32,490,129	641	10,095	6,070,667	601	60,789	38,560,796
1933	53,849	32,568,268	605	12,003	6,062,195	505	65,852	38,630,463
1934	92,647	57,260,156	618	24,205	12,770,318	528	116,852	70,030,474
1935	135,562	79,209,276	584	37,315	19,803,771	531	172,877	99,013,047
1936	128,369	76,814,258	598	33,790	19,140,946	566	162,159	95,955,204
1937	153,046	93,368,282	610	54,417	30,389,011	558	207,463	123,757,293
1938	123,761	81,661,687	660	42,325	26,497,038	626	166,086	108,158,725
1939	108,369	71,101,204	656	47,057	28,072,712	597	155,426	99,173,916
1940	109,911	83,544,445	760	113,102	91,191,516	806	223,013	174,735,961
1941	96,603	81,167,694	840	173,588	163,414,253	941	270,191	244,581,947
1942	12,236	10,305,013	842	216,057	229,103,128	1060	228,293	239,408,141
1943	——	No production	——	178,064	222,393,092	1249	178,064	222,393,092
1944	——	No production	——	158,038	213,259,582	1349	158,038	213,259,582
1945	1,868	1,638,118	876	130,740	166,670,117	1275	132,608	168,308,235
1946	92,456	n.a.	...	79,797	n.a.	....	172,253	n.a.

†—Dominion Bureau of Statistics. n.a.—Not available.

Canadian Motor Vehicle Registrations, 1941-1945*

Province	Passenger Cars	Trucks	Buses	Other†	Total Motor Vehicles	Motor-cycles	Trailers
1941							
P. E. Island	6,773	1,214	12	.....	7,999	16	403
Nova Scotia	47,208	13,440	169	1,319	62,136	669	1,670
New Brunswick	31,945	8,052	109	983	41,089	361	1,867
Quebec	184,167	42,983	1,051	1,073	229,274	2,875	11,097
Ontario	636,624	95,408	1,268	**	733,300	5,894	48,739
Manitoba	75,982	19,696	111	78	95,847	726	6,744
Saskatchewan	94,973	35,540	100	188	130,801	744	5,288
Alberta	96,303	28,876	207	....	125,386	741	331
Br. Columbia	105,410	25,539	414	715	132,078	2,421	4,165
Yukon	171	193	....	33	397	30	.....
Total	1,279,536	270,941	3,441	4,389	1,558,307	14,477	80,304
1943							
P. E. Island	6,670	1,290	20	24	8,004	28	385
Nova Scotia	42,509	14,439	212	961	58,121	1,073	1,603
New Brunswick	30,083	8,424	194	1,127	39,828	377	1,640
Quebec	171,369	47,229	1,264	**	219,862	2,814	12,438
Ontario	586,036	97,550	1,614	....	685,200	6,415	48,426
Manitoba	71,603	20,919	106	118	92,746	748	6,527
Saskatchewan	93,895	38,943	257	22	133,117	722	5,804
Alberta	92,551	33,961	158	....	126,670	889	.....
Br. Columbia	98,920	31,146	477	842	131,385	3,306	5,041
Yukon	211	275	....	30	516	24	.....
Total	1,193,847	294,176	4,302	3,124	1,495,449	16,396	81,864
1944							
P. E. Island	6,833	1,471	26	42	8,372	40	347
Nova Scotia	41,756	14,583	225	675	57,239	694	1,794
New Brunswick	29,177	9,103	233	751	39,264	306	1,784
Quebec	171,385	48,471	1,452	....	221,308	2,734	13,104
Ontario	568,223	99,190	1,743	....	669,156	5,901	48,900
Manitoba	70,643	21,660	105	181	92,589	738	6,777
Saskatchewan	98,412	41,512	276	15	140,215	777	6,194
Alberta	91,828	34,890	193	....	126,711	705	315
Br. Columbia	99,063	31,463	423	1,007	131,956	3,134	5,539
Yukon	238	468	....	36	742	16	.....
Total	1,177,558	302,611	4,676	2,677	1,487,522	15,045	84,734
1945							
P. E. Island	6,744	2,043	8	....	8,795	40	345
Nova Scotia	40,314	15,049	350	400	56,113	586	1,934
New Brunswick	28,794	12,155	221	148	41,318	259	1,911
Quebec	171,240	52,403	1,629	575	225,847	2,834	14,101
Ontario	555,461	99,618	1,895	....	656,974	5,745	53,004
Manitoba	69,268	22,609	126	61	92,064	694	7,053
Saskatchewan	96,268	42,939	261	17	139,485	772	6,662
Alberta	92,334	36,262	815	....	129,411	742	326
Br. Columbia	99,421	32,185	676	....	132,282	2,506	6,276
Yukon	214	343	7	34	598	16	.....
Total	1,160,058	315,606	5,988	1,235	1,482,887	14,194	91,612

*—Canadian Automobile Chamber of Commerce. †—Includes road tractors, ambulances, fire trucks, hearses, etc. **—Included in trucks.

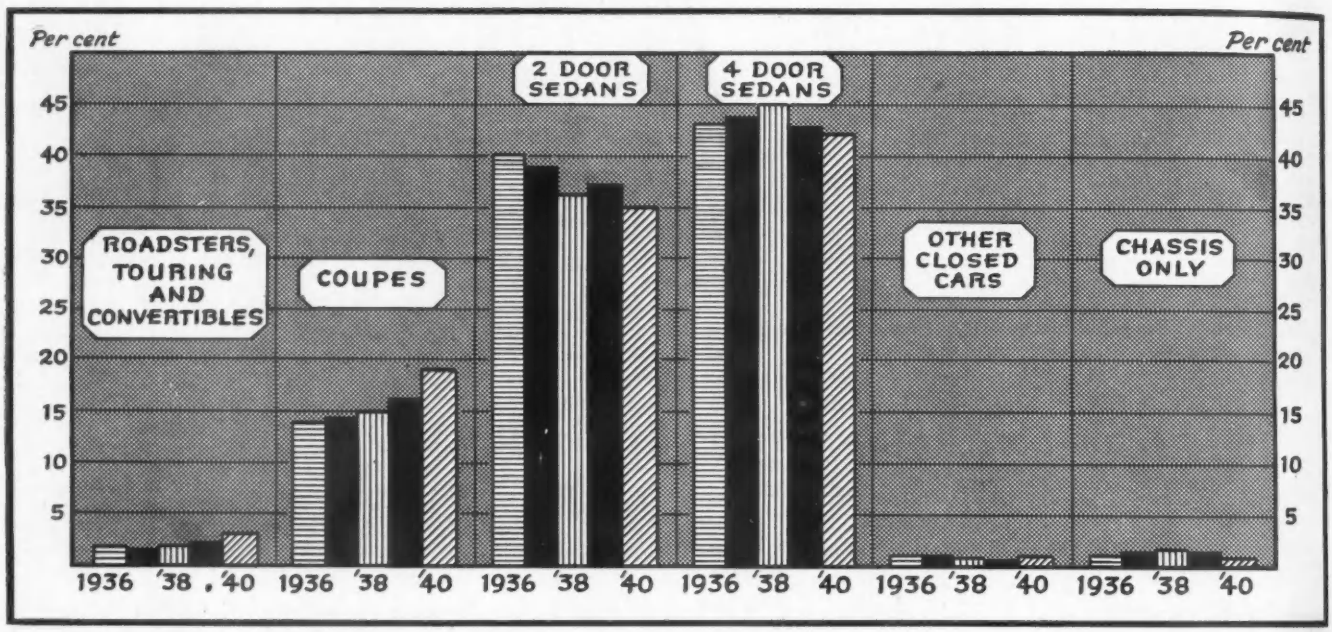
PREWAR PASSENGER CAR PRODUCTION

Passenger Car Factory Sales by Body Types, 1935-1940

U. S. Plants

Body Type	1935 Number	1935 %	1936 Number	1936 %	1937 Number	1937 %	1938 Number	1938 %	1939 Number	1939 %	1940 Number	1940 %
Roadster	7,632	.23	7,214	.20	1,076	.03	591	.03	296	.01	38	.....
Touring	6,501	.20	4,196	.11	2,969	.08	1,007	.05	459	.02	.....	.....
Convertible Coupe	33,340	1.03	37,153	1.01	44,275	1.13	29,437	1.47	51,086	1.78	95,976	2.60
Convertible Sedan	6,851	.21	12,763	.35	14,061	.36	7,553	.38	7,167	.25	9,351	.25
Coupe	491,711	15.12	478,588	13.04	564,238	14.41	303,352	15.16	462,818	16.14	706,818	19.14
2-Door Sedan	1,267,266	38.96	1,475,796	40.22	1,522,059	38.86	728,747	36.42	1,068,399	37.20	1,308,110	35.42
4-Door Sedan	1,386,501	42.63	1,600,414	43.61	1,711,648	43.71	901,826	45.07	1,249,329	43.58	1,545,100	41.85
All Other Closed Cars	4,115	.13	13,347	.36	10,794	.28	4,480	.22	4,100	.14	14,536	.39
Chassis	48,327	1.49	40,057	1.10	44,769	1.14	23,992	1.20	25,142	.88	12,399	.34
Total	3,252,244	100.00	3,669,528	100.00	3,915,889	100.00	2,000,985	100.00	2,868,796	100.00	3,692,328	100.00

FOUR DOOR SEDANS ARE MOST POPULAR

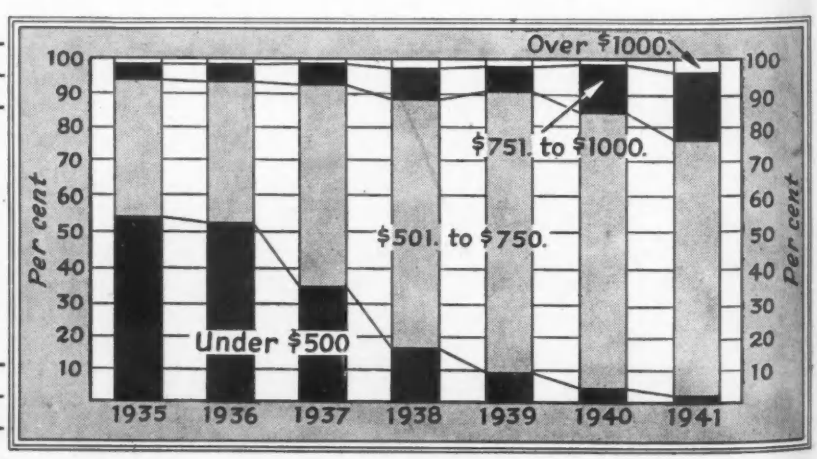


Passenger Car Factory Sales by Wholesale Price Classes, 1935-1941

U. S. Plants

Price Classes	1935 Number	1935 %	1936 Number	1936 %	1937 Number	1937 %	1938 Number	1938 %	1939 Number	1939 %	1940 Number	1940 %	1941 Number	1941 %
Under $500	1,724,549	53.0	1,879,402	51.2	1,329,013	33.9	308,140	15.4	265,341	9.3	125,198	3.4	10,107	.3
$501-$750	1,383,575	42.5	1,603,097	43.8	2,297,199	58.7	1,462,756	73.1	2,328,184	81.1	3,017,536	81.6	2,842,268	75.9
$751-$1000	101,479	3.1	133,148	3.6	243,516	6.2	184,625	9.2	218,986	7.6	478,258	13.0	772,549	20.7
$1001-$1500	26,401	.8	36,781	1.0	29,445	.8	39,102	2.0	47,849	1.7	61,362	1.7	108,284	2.8
$1501-$2000	8,519	.3	11,326	.3	11,354	.3	3,538	.2	4,222	.2	7,547	.2	9,295	.2
$2001-$3000	5,293	.2	4,232	.1	4,080	.1	2,161	.1	1,870	.1	2,306	.1	3,712	.1
Over $3000	2,428	.1	1,542	.....	1,302	.....	663	.....	344	.....	121	.....	87	.....
Total	3,252,244	100.0	3,669,528	100.0	3,915,889	100.0	2,000,985	100.0	2,868,796	100.0	3,692,328	100.0	3,744,300	100.0

76% OF PASSENGER CAR FACTORY SALES WERE PRICED UNDER $750 WHOLESALE IN 1941



Truck Production by Capacities, 1936-1945*

By Plants Located in the United States

Year	LIGHT			MEDIUM			HEAVY			TOTAL—ALL WEIGHTS		
	Civilian	Military	Total	Civilian	Military	Total	Civilian	Military	Total	Civilian	Military	Total
1936	317,189	1,004	318,193	417,395	1,125	418,520	36,045	596	36,641	770,629	2,725	773,354
1937	396,326	368	396,694	437,525	1,266	438,791	38,267	69	38,336	872,118	1,703	873,821
1938	208,575	690	209,265	248,886	1,119	250,005	20,846	439	21,285	478,307	2,248	480,555
1939	306,098	1,651	307,749	343,190	2,900	346,090	36,008	1,637	37,645	685,296	6,188	691,484
1940	337,983	13,365	351,348	323,088	36,042	359,130	39,030	5,982	45,012	700,101	55,389	755,490
1941	367,467	72,164	439,631	408,367	128,170	536,537	47,371	18,323	65,694	823,205	218,657	1,041,862
1942	23,427	277,413	300,840	86,072	169,188	255,260	15,795	225,032	240,827	125,294	671,633	796,927
1943	0	268,438	268,438	179	154,808	154,987	2,709	249,368	252,077	2,888	672,614	675,502
1944	0	247,113	247,113	87,990	87,380	175,370	31,091	290,176	321,267	119,081	624,669	743,750
1945	72,197	132,574	204,771	183,948	24,232	208,180	57,498	198,129	255,627	313,643	354,935	668,578

*—War Production Board and Civilian Production Administration

1946 Motor Truck Factory Sales by Gross Vehicle Weights*

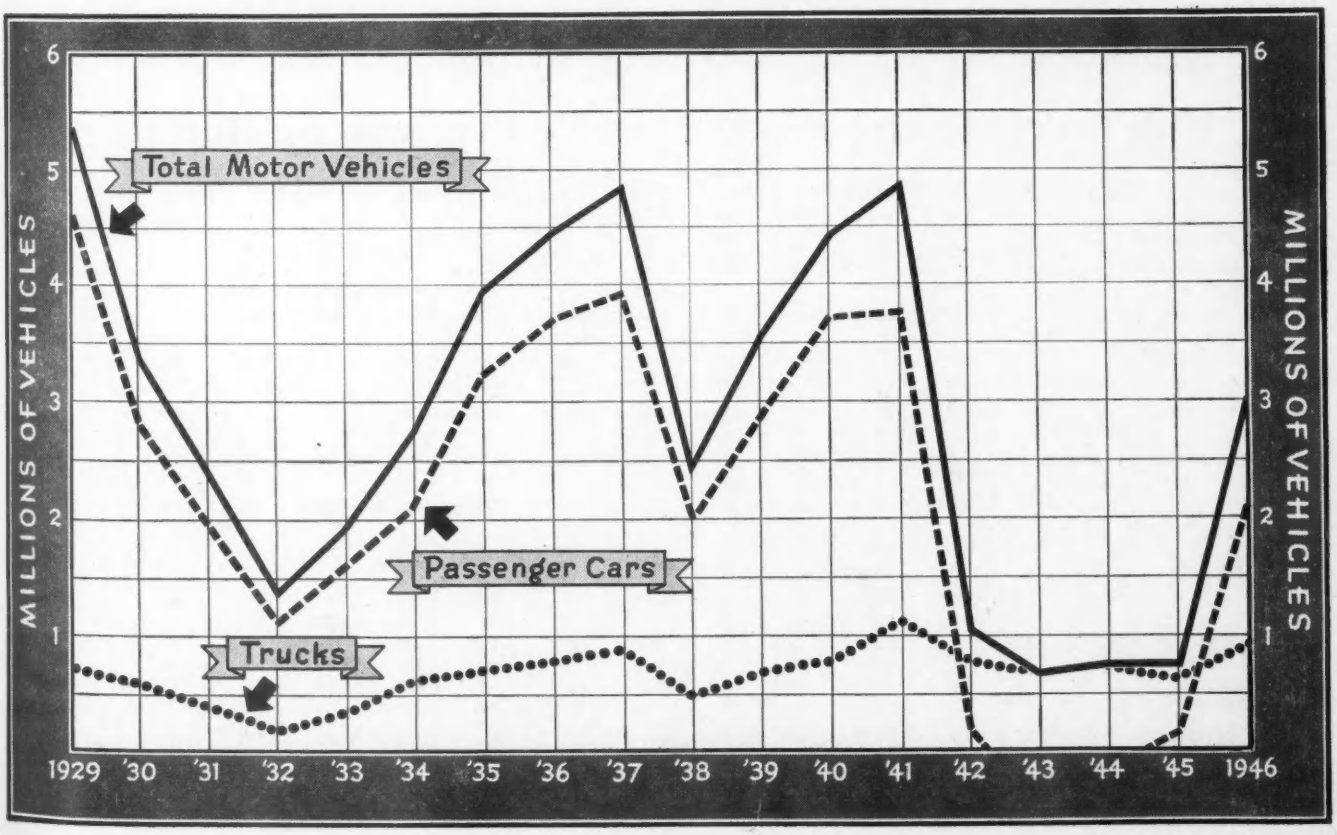
From Plants Located in the United States

Month	5,000- & less	5,001- 10,000	10,001- 14,000	14,001- 16,000	16,001- 19,500	19,501- 26,000	Over 26,000	Total
January	18,535	3,877	9,058	8,499	1,646	2,136	1,282	45,033
February	13,758	3,100	9,436	4,624	1,230	1,760	1,085	34,933
March	16,821	2,002	8,451	7,791	441	1,223	937	37,666
April	26,925	5,013	29,795	14,669	1,720	1,691	958	80,771
May	26,209	5,833	22,884	15,635	2,002	1,729	1,081	75,373
June	32,890	4,795	12,754	5,555	1,556	1,469	1,019	60,038
July	30,618	7,125	23,209	21,633	2,301	1,791	914	87,591
August	34,987	6,744	28,281	23,189	1,853	1,858	969	97,881
September	32,605	9,188	28,687	20,074	2,066	2,076	986	95,682
October	35,933	14,745	26,859	21,754	3,082	3,387	1,606	107,166
November	30,520	12,424	22,971	27,438	3,377	2,878	1,321	100,929
December	30,929	13,389	25,727	29,713	2,888	3,254	1,716	107,616
Total	330,730	88,235	247,912	200,574	24,162	25,252	13,874	930,739

*—1946 data not comparable with data for years 1936 through 1945. Material for 1946 represents factory sales as supplied by the Automobile Manufacturers Association whereas production is shown for years 1936 through 1945.

1946 TRUCK OUTPUT SETS NEW CIVILIAN RECORD

PASSENGER CAR AND TRUCK PRODUCTION, 1929-1946



Passenger Car and Truck Production by Months, 1934-1946*

Factory Sales for 1933-1941 and 1946; Production 1942 through 1945

(U. S. Plants)

PASSENGER CARS

	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
January	112,754	227,554	297,692	309,494	155,505	281,465	363,120	413,012				.....	88,367
February	186,774	273,576	224,211	296,788	139,380	243,000	339,595	397,067				.....	97,704
March	279,274	359,410	342,870	403,879	174,065	299,703	356,351	416,016				.....	95,810
April	288,355	387,158	416,431	439,980	176,078	273,409	384,096	378,906				.....	132,631
May	273,764	306,547	384,921	425,432	154,958	237,670	327,873	421,631				.....	160,942
June	261,280	294,182	375,337	411,414	136,531	246,704	289,228	423,008				.....	141,000
July	223,094	274,344	371,922	360,400	106,841	150,738	174,218	347,907				359	209,199
August	183,500	181,130	209,351	311,456	58,624	61,407	47,804	79,343				1,381	247,281
September	125,040	56,097	90,101	118,671	65,159	161,625	223,593	166,397	Production for first three months	No Production	No Production	580	232,280
October	84,003	213,310	190,242	298,662	187,494	251,819	421,777	296,554				16,839	263,586
November	49,020	336,914	341,085	295,328	320,344	285,252	409,817	259,631				34,612	269,061
December	111,061	343,022	425,365	244,385	326,006	373,804	400,913	180,210				30,022	266,668
Total	2,177,919	3,252,244	3,669,528	3,915,889	2,000,985	2,866,796	3,717,385	3,779,682	220,814	.....	.....	83,793	2,148,677

TRUCKS

	1934	1935	1936	1937	1938	1939	1940	1941	1942†	1943†	1944†	1945†	1946
January	42,912	62,174	66,250	70,109	53,823	60,703	68,356	86,436	93,181	49,612	58,827	67,394	45,461
February	43,482	58,655	63,331	67,405	47,151	60,220	63,709	87,824	77,269	47,546	55,916	64,510	35,179
March	59,160	66,503	78,052	90,242	47,580	72,243	68,260	94,106	89,537	55,979	56,695	75,057	38,163
April	64,620	65,778	86,243	96,170	43,032	63,966	67,764	85,395	64,157	56,173	56,071	67,579	81,710
May	56,691	55,560	75,591	91,487	37,101	59,672	63,255	97,115	61,064	55,190	57,287	71,267	76,182
June	45,197	62,158	77,631	85,898	38,139	63,034	56,562	97,884	73,732	56,516	61,479	66,456	60,812
July	41,839	57,765	68,809	78,568	34,602	58,621	62,187	97,877	63,885	60,285	61,921	54,563	88,316
August	51,311	56,270	61,923	82,874	31,870	38,461	28,995	65,383	59,526	61,321	69,015	44,779	98,948
September	44,967	31,443	45,064	52,542	18,375	27,132	44,147	68,460	59,857	57,582	65,605	31,572	96,491
October	47,988	58,733	34,446	31,214	22,018	61,573	70,447	81,478	56,743	60,160	64,723	42,225	108,129
November	34,462	58,145	53,902	64,727	52,069	66,533	76,841	93,128	51,628	57,168	69,497	53,634	102,038
December	42,563	61,506	73,345	81,849	62,340	78,338	84,378	105,734	54,685‡	59,583	72,165	29,542	109,421
Total	575,192	694,690	784,587	893,085	488,100	710,496	754,901	1,060,820	805,264	677,115	749,201	668,578	940,830

TOTAL—PASSENGER CARS AND TRUCKS

	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
January	155,666	289,728	363,942	379,603	209,328	342,168	431,476	499,448	93,181	49,612	58,827	67,394	101,828
February	230,256	332,231	287,542	364,193	186,531	303,220	403,304	484,891	77,269	47,546	55,916	64,510	92,963
March	338,434	425,913	420,922	494,121	221,645	371,946	424,611	510,122	89,537	55,979	56,695	75,057	123,973
April	352,975	452,936	502,674	536,150	219,110	337,375	431,860	464,301	64,157	56,173	56,071	67,579	214,341
May	330,455	361,107	460,512	516,919	192,059	297,542	391,128	518,746	61,064	55,190	57,287	71,267	243,104
June	306,477	356,340	452,968	497,312	174,670	309,738	345,790	520,892	73,732	56,516	61,479	66,456	201,902
July	264,933	332,109	440,731	438,968	141,443	209,359	236,405	445,784	63,885	60,285	61,921	54,922	297,496
August	234,811	237,400	271,274	394,330	90,494	99,868	76,799	144,726	59,526	61,321	69,015	46,160	346,209
September	170,007	87,540	135,165	171,213	83,534	188,757	267,740	234,857	59,857	57,582	65,605	32,152	328,771
October	131,991	272,043	224,688	329,876	209,512	313,392	492,224	378,032	56,743	60,160	64,723	59,064	391,715
November	83,482	395,059	394,987	360,055	372,413	351,785	485,658	352,759	51,628	57,168	69,497	88,246	371,113
December	153,624	404,528	498,710	326,234	388,346	452,142	485,291	285,944	54,685	59,583	72,165	59,564	376,089
Total	2,753,111	3,946,934	4,454,115	4,808,974	2,489,085	3,577,292	4,472,286	4,840,502	1,026,078§	677,115	749,201	752,371	3,089,507

*—Bureau of Census and Automobile Manufacturers Association.

†—These data cover actual production of trucks for military and civilian use. Jeeps, military ambulances and wheel-drive personnel carriers are included. To these have been added integral buses except for 1945, bus data for which were incomplete.

‡—Adjusted to force agreement with revised total. §—Passenger car total plus truck total.

NOTE:—Prior to 1940 station wagons and other vehicles built on passenger car chassis are included with trucks. In 1940 and later years such vehicles built on passenger car chassis are included with passenger cars. The monthly data shown for 1940 and 1941 are on the revised basis. However, as revised monthly data were not available for the years 1942 through 1945, data for those years are presented on the old basis. The yearly totals on the revised basis are as follows:—1942—cars 222,862; trucks 818,662; 1943—cars 139 trucks 699,689; 1944—cars 610, trucks 737,524; 1945—cars 69,532, trucks 655,683; 1946 figures are on the revised basis.

1946 Truck Trailer Production, by Type and by Months*

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Vans													
Insulated	157	103	113	114	82	93	97	93	55	69	112	40	1,128
Refrigerated	280	66	100	109	425	53	44	118	251	481	227	102	2,286
Furniture	802	153	60	240	165	40	21	36	46	41	48	.....	1,662
All other Closed Top	1,435	1,503	1,938	2,886	2,564	1,729	2,056	2,678	2,105	3,120	2,535	3,037	27,586
Open Top	148	60	328	115	70	68	69	166	222	276	225	282	2,029
Total Vans	2,822	1,885	2,539	3,464	3,306	1,983	2,287	3,091	2,679	3,987	3,147	3,461	34,651
Racks													
Cattle Racks	287	263	439	347	417	339	368	497	499	430	609	437	4,932
Stake Racks	198	201	220	325	316	316	291	261	324	341	256	202	3,251
Total Racks	485	464	659	672	733	655	659	758	823	771	865	639	8,183
Tanks													
Petroleum	137	137	133	170	126	198	155	131	120	181	188	123	1,799
Other	25	12	17	32	44	30	83	153	121	84	101	125	827
Total Tanks	162	149	150	202	170	228	238	284	241	265	289	248	2,626
Pole and Logging													
Single Axle	246	327	396	333	250	278	780	984	642	742	638	354	5,970
Tandem Axle	90	55	86	81	147	121	98	225	171	152	223	149	1,598
Total	336	382	482	414	397	399	878	1,209	813	894	861	503	7,568
Platforms	791	381	646	998	969	737	1,137	1,298	970	1,433	1,266	1,136	11,762
Low-bed Haulers (over 15 ton)	166	116	173	155	167	187	126	190	168	152	229	147	1,976
Off-highway Trailers	46	37	41	68	37	26	57	55	43	68	54	87	619
Dump Trailers	39	54	40	37	57	25	37	50	78	155	79	46	697
All Other Trailers	77	72	88	138	180	219	235	272	328	428	261	239	2,337
Total—All Trailers	4,924	3,540	4,818	6,148	6,016	4,459	5,654	7,207	6,143	8,153	7,051	6,506	70,619
Trailer Chassis	399	358	594	543	601	574	312	443	435	578	398	380	5,615
Total Trailers and Chassis	5,323	3,898	5,412	6,691	6,617	5,033	5,966	7,650	6,578	8,731	7,449	6,886	76,234

* Industry Division—Bureau of the Census.

Civilian Trailer Production, 1939-1941 and 1944*

Body Type	1939 Number	1939 Per Cent of Total	1940 Number	1940 Per Cent of Total	1941 Number	1941 Per Cent of Total	1944 Number	1944 Per Cent of Total
General Freight †	18,144	75.04	19,693	72.63	30,837	73.65	19,822	82.28
Low-Bed Heavy Haulers	850	3.52	1,023	3.77	1,205	2.88	256	1.06
Pole, Pipe and Logging	2,891	11.95	3,728	13.75	5,837	13.95	2,100	8.72
Dumps (All Types)	806	3.33	728	2.68	1,392	3.32	.....	.....
Petroleum Tanks	1,249	5.16	1,652	6.09	2,239	5.35	1,003	4.16
Milk Tanks	139	.57	147	.54	182	.43	245	1.02
Miscellaneous Tanks ‡	103	.43	147	.54	177	.42	666	2.76
Total	24,182	100.00	27,118	100.00	41,869	100.00	24,092	100.00

*—Covers exclusively the highway civilian-type truck trailers and does not include those trailers with a rated tonnage capacity under 5 tons and those produced on direct military contract. Therefore, not directly comparable with civilian production data for 1942, 1943, 1944 and 1945.
†—Includes vans, express, rack, platform, stake, panel and special purpose type body.
‡—For asphalt, chemicals and other types not elsewhere specified.

Truck Trailer Production, 1942-1945*

Civilian and Military

	1942 Civilian	1942 Military	1942 Total	1943 Civilian	1943 Military	1943 Total	1944 Civilian	1944 Military	1944 Total	1945 Civilian	1945 Military	1945 Total
January	1,387	2,023	3,410	556	11,785	12,341	765	32,316	33,081	2,861	12,568	15,429
February	946	1,738	2,684	925	8,767	9,692	1,035	30,718	31,753	2,251	13,314	15,565
March	1,245	2,197	3,442	430	10,915	11,345	802	25,997	26,799	2,151	14,330	16,481
April	936	3,221	4,157	567	11,471	12,038	1,124	12,886	14,010	1,997	13,629	15,626
May	1,151	4,385	5,536	611	10,487	11,098	2,592	12,089	14,681	1,854	15,084	16,938
June	1,318	4,814	6,132	1,267	14,941	16,208	1,750	9,698	11,448	2,735	15,042	17,777
July	411	4,741	5,152	698	16,866	17,564	1,624	7,162	8,786	2,422	n.a.	n.a.
August	294	8,861	9,155	792	16,772	17,564	1,397	9,046	10,443	2,565	n.a.	n.a.
September	227	10,614	10,841	477	19,811	20,288	4,447	9,591	14,038	2,984	n.a.	n.a.
October	259	8,170	8,429	420	21,456	21,876	3,185	11,445	14,630	3,803	n.a.	n.a.
November	138	10,045	10,183	518	22,264	22,782	2,523	11,540	14,063	3,873	n.a.	n.a.
December	96	10,711	10,807	793	23,276	24,069	2,848	12,861	15,709	3,770	n.a.	n.a.
Total	8,408	71,520	79,928	8,054	188,811	196,865	24,092	185,349	209,441	33,266	83,967‡	97,816‡

n.a.—Not available. ‡—Six months total. *—As reported by War Production Board.

FARM AND NON-FARM TRACTOR PRODUCTION

In Units and Their Wholesale Value

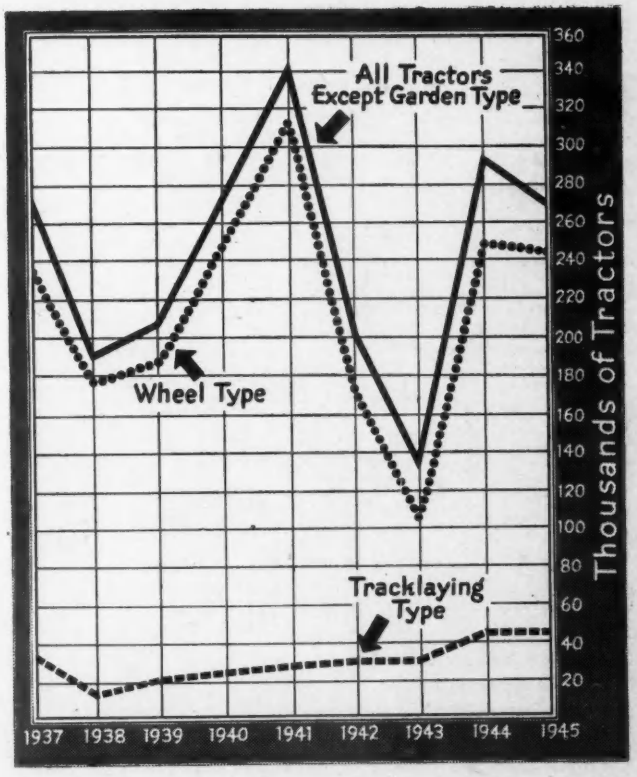
WHEEL TYPE

Year	Number	Value at Factory	Average Value per Tractor
1946	258,274	$183,690,000	$711
1945	244,430	168,896,000	691
1944	249,131	169,899,838	682
1943	105,248	63,784,198	606
1942	172,123	102,557,627	596
1941	313,432	182,895,701	583
1940	249,434	136,762,330	548
1939	185,558	110,856,746	597
1938	172,437	116,881,739	678
1937	237,837	159,685,605	671
1936	193,947	120,801,359	623
1935	138,084	83,427,604	604

TRACKLAYING TYPE

1946	25,902	$ 80,073,000	$3,091
1945	44,872	212,007,000	4,725
1944	44,860	259,875,093	5,937
1943	29,453	135,443,129	4,599
1942	29,578	104,123,139	3,520
1941	28,661	77,024,351	2,687
1940	24,762	59,534,635	2,404
1939	20,127	45,305,160	2,251
1938	16,837	33,771,693	2,006
1937	34,602	66,418,335	1,919
1936	27,299	54,602,581	2,000
1935	18,774	37,056,960	1,974

* Industry Division—Bureau of the Census.



1946 Motor-Vehicle Registrations

Trucks Reach

Total U. S. Motor Vehicle

As of the end of

STATES	PASSENGER CARS[1]		TRUCKS		BUSES		TOTAL MOTOR VEHICLES	
	1946	1945	1946	1945	1946	1945	1946	1945
Alabama	296,504	278,493	85,902	72,141	1,823	1,955	384,229	352,589
Arizona	123,844	112,855	35,044	29,462	841[3]	700[3]	159,729	143,017
Arkansas	222,579	193,875	94,450	78,902	1,014	1,103	318,043	273,880
California	2,505,002	2,238,613[4]	406,729	355,282	6,453	6,033	2,918,184	2,599,928[5]
Colorado	301,622	269,616	90,543[3]	76,837	[6]	[6]	392,165	346,453
Connecticut[5]	438,265	409,710	66,202	58,861	1,655	1,364	506,122	469,935
Delaware	56,690	53,610	14,296	13,162	[6]	[6]	70,986	66,772
District of Columbia	111,156	96,087	14,495	13,879	2,114	2,132	127,765	112,098
Florida	483,585	423,158	120,525	96,384	3,699	3,211	607,809	522,753
Georgia	450,148	419,290	126,403	104,650	4,771	4,768	581,322	528,708
Idaho	123,995	111,770	40,000	38,352	.....	206	163,995	150,328
Illinois	1,680,000	1,508,222	262,000	224,929	[6]	[6]	1,942,000	1,733,151
Indiana	897,465	833,908	175,412	137,809	7,818	7,330	1,080,695	979,047
Iowa	621,971	588,295	115,984	102,176	[6]	[6]	737,955	690,471
Kansas	503,628	476,596	146,897	129,353	[6]	[6]	650,525	605,949
Kentucky	370,000	351,825	94,000	82,017	.....	.....	464,000	433,842
Louisiana	333,214	322,749	98,117	78,256	3,433	3,248	434,764	404,253
Maine	169,108	153,861	56,496	49,891	444	493	226,048	204,245
Maryland	421,429	379,220	77,195	65,090	1,742	1,218	500,366	445,528
Massachusetts	835,428	744,364	131,071	111,417	5,782	5,471	972,281	861,252
Michigan	1,404,082	1,307,475	194,546	167,677	[6]	[6]	1,598,628	1,475,152
Minnesota	675,920	632,659	131,607	115,906	405	375	807,932	748,940
Mississippi	195,000	184,321	77,500	68,988	3,000	2,707	275,500	256,016
Missouri	776,771	697,168	188,394	157,084	.....	.....	965,165	854,252
Montana	120,102	108,625	54,947	48,260	[6]	[6]	175,049	156,885
Nebraska	351,048	331,076	87,121	75,554	638	582	438,807	407,212
Nevada	38,717	35,583	10,778	9,193	[6]	[6]	49,495	44,776
New Hampshire	105,951	95,113	31,744	23,483	[6]	[6]	137,695	118,596
New Jersey	923,323	860,000	164,381	149,000	7,040	8,800	1,094,744	1,017,800
New Mexico	97,488	86,823	35,028	29,640	1,866[3]	1,522[3]	134,382	117,985
New York	2,241,978	1,983,693	373,625	354,052	10,510	31,486[3]	2,626,113	2,369,231
North Carolina	553,691	502,700	123,748	97,500	2,883	2,850	680,322	603,050
North Dakota	139,023	131,468	53,868	49,262	198	160	193,089	180,890
Ohio	1,766,000	1,684,390	228,000	196,810	3,400	2,995	1,997,400	1,884,195
Oklahoma	427,036	391,085	128,124	109,896	5,643	4,501[3]	560,803	505,482
Oregon	360,168	330,771	99,025	82,408	1,466	1,218	460,659	414,397
Pennsylvania	1,861,266	1,731,430	337,232	304,972	10,223	8,993	2,208,721	2,045,395
Rhode Island	164,300	156,490	26,500	22,607	695	715	191,495	179,812
South Carolina	299,211	275,410	64,158	48,047	2,760	2,134	366,129	325,591
South Dakota	150,471	141,065	42,163	37,149	233	202	192,867	178,416
Tennessee	415,953	368,568	99,517	77,134	[7]	[7]	515,470	445,702
Texas	1,440,000	1,273,759	365,000	307,455	2,200	1,988	1,807,200	1,583,202
Utah	139,402	126,740	31,267	26,748	339	242	171,008	153,730
Vermont	88,480	80,666	13,555	11,667	176	157	102,211	92,490
Virginia	479,218	443,239	116,084	94,286	2,477	2,668	597,779	540,193
Washington	525,222	509,140	117,173	103,762	2,291	2,203	644,686	615,105
West Virginia	230,764	208,035	66,612	55,512	1,217	1,039	298,593	264,586
Wisconsin	744,911	692,575	160,940	142,240	1,998	1,886	907,849	836,701
Wyoming	67,760	62,640	23,896	21,436	.....	.....	91,656	84,076
Total	27,728,889	25,398,824	5,698,294	4,906,578	103,247	118,655	33,530,430	30,424,057

(1)—Includes taxicabs unless otherwise noted.

(2)—For fiscal year ending September 30th.

(3)—Includes taxicabs.

(4)—124,834 light commercial vehicles registered as passenger cars during 1945 were transferred to trucks. 134,972 were transferred in 1946.

(5)—Does not include 128,415 vehicles originally registered in other states during 1945 and 179,698 in 1946.

(6)—Included with trucks.

(7)—Included with passenger cars.

(8)—Calendar year 1945, Mar. 1 to Dec. 31, 1946.

Increase 3,106,000 Over 1945

All-Time High

Registrations, by States, 1946-45

the Registration Year

Per Cent Change	Per Cent of Total 1946	Per Cent of Total 1945	TRAILERS—1946 House or Tourist	TRAILERS—1946 Full and Semi-trailers	TRAILERS—1946 Total all Trailers	MOTORCYCLES 1946	MOTORCYCLES 1945	STATES
9.0	1.15	1.16	.....	6,392	6,392	3,524	2,974	.....Alabama
11.7	.48	.47	7,912	4,797	12,709	1,563	1,178	.....Arizona
16.1	.95	.90	382	21,753	22,135	1,962	1,167	.....Arkansas
12.2	8.71	8.55	66,400	241,416	307,816	36,353	27,173	.....California
13.2	1.17	1.14	.....	3,573	3,573	3,416	2,110	.....Colorado
7.7	1.51	1.54	10,775	3,463	14,238	4,051	2,800	.....Connecticut[5]
6.3	.21	.22	.....	.....	2,939	442	341	.....Delaware
14.0	.38	.37	.....	.....	1,256	969	586	..District of Columbia
16.3	1.81	1.72	.....	.....	42,692	8,665	5,249	.....Florida
10.0	1.73	1.74	15,954	7,328	23,282	4,656	3,511	.....Georgia
9.1	.49	.49	22,736	706	23,442	1,082	572	.....Idaho
12.0	5.79	5.70	.....	.....	41,758	14,095	8,834	.....Illinois
10.4	3.22	3.22	9,529	106,627	116,156	17,753	11,574	.....Indiana
6.9	2.20	2.27	.....	.....	107,378	5,595	3,299	.....Iowa
7.3	1.94	1.99	.....	.....	11,580	5,787	3,222	.....Kansas
6.9	1.38	1.43	.....	.....	.....	2,500	2,072	.....Kentucky
7.5	1.30	1.33	1,236	27,049	28,285	5,099	3,278	.....Louisiana
10.7	.67	.67	.....	.....	16,376	1,594	915	.....Maine
12.3	1.49	1.46	.....	.....	14,112	5,059	3,208	.....Maryland
12.9	2.90	2.83	.....	.....	38,774	4,578	2,308	.....Massachusetts
8.4	4.77	4.85	11,571	194,262	205,833	13,038	6,583	.....Michigan
7.9	2.41	2.46	47,084	10,091	57,175	5,824	3,280	.....Minnesota
7.6	.82	.84	.....	.....	8,000	1,500	1,060	.....Mississippi
13.0	2.88	2.81	.....	.....	64,350	6,468	3,428	.....Missouri
11.6	.52	.52	.....	.....	4,855	712	405	.....Montana
7.7	1.31	1.34	2,531	5,582	8,113	3,960	2,271	.....Nebraska
10.5	.15	.15	.....	.....	3,000	275	193	.....Nevada
16.1	.41	.39	.....	.....	7,570	1,219	748	.....New Hampshire
7.6	3.26	3.35	.....	.....	19,678	9,233	6,200	.....New Jersey
13.9	.40	.39	.....	.....	4,684	845	658	.....New Mexico
10.8	7.84	7.79	.....	.....	90,358	18,909	12,080	.....New York
12.8	2.03	1.98	.....	.....	62,963	6,354	3,899	.....North Carolina
6.7	.58	.59	1,086	.....	1,086	450	278	.....North Dakota
6.0	5.96	6.19	.....	.....	155,000	15,000	13,807	.....Ohio
10.9	1.67	1.66	1,768	8,239	10,007	4,390	2,776	.....Oklahoma
11.1	1.37	1.36	[6]	[6]	[6]	3,691	2,690	.....Oregon
8.0	6.59	6.72	.....	.....	67,985	20,360	13,849	.....Pennsylvania
6.5	.57	.59	.....	.....	2,500	1,600	1,246	.....Rhode Island
12.4	1.09	1.07	.....	.....	7,347	3,250	2,178	.....South Carolina
8.0	.58	.59	.....	.....	27,214	994	421	.....South Dakota
15.6	1.54	1.46	.....	.....	.....	4,891	2,416	.....Tennessee
14.1	5.39	5.20	.....	.....	84,000	16,500	10,482	.....Texas
11.2	.51	.50	.....	.....	1,143	869	572	.....Utah
10.5	.30	.30	.....	.....	4,463	717	485	.....Vermont
10.7	1.78	1.78	17,244	8,543	25,787	7,382	5,075	.....Virginia
4.8	1.92	2.02	4,329	45,506	49,835	4,553	3,442	.....Washington
12.8	.89	.87	5,842	714	6,556	2,169	1,214	.....West Virginia
8.5	2.71	2.75	2,549	7,168	9,717	6,105	4,008	.....Wisconsin
9.0	.27	.28	.....	.....	10,892	400	360	.....Wyoming
10.2	100.00	100.00	.....	.....	1,835,004	290,401	192,475	.....Total

Note:—In the above tabulation we have endeavored to make as accurate a count as existing conditions permit. This census is compiled from material secured direct from the state motor vehicle commissioners. Wherever possible, duplications, occasioned by transfers and non-resident registrations, have been eliminated. Data are for the registration year rather than the calendar year, even though this necessitates partial estimates in the case of those states whose registration year ends February or March of the following year.

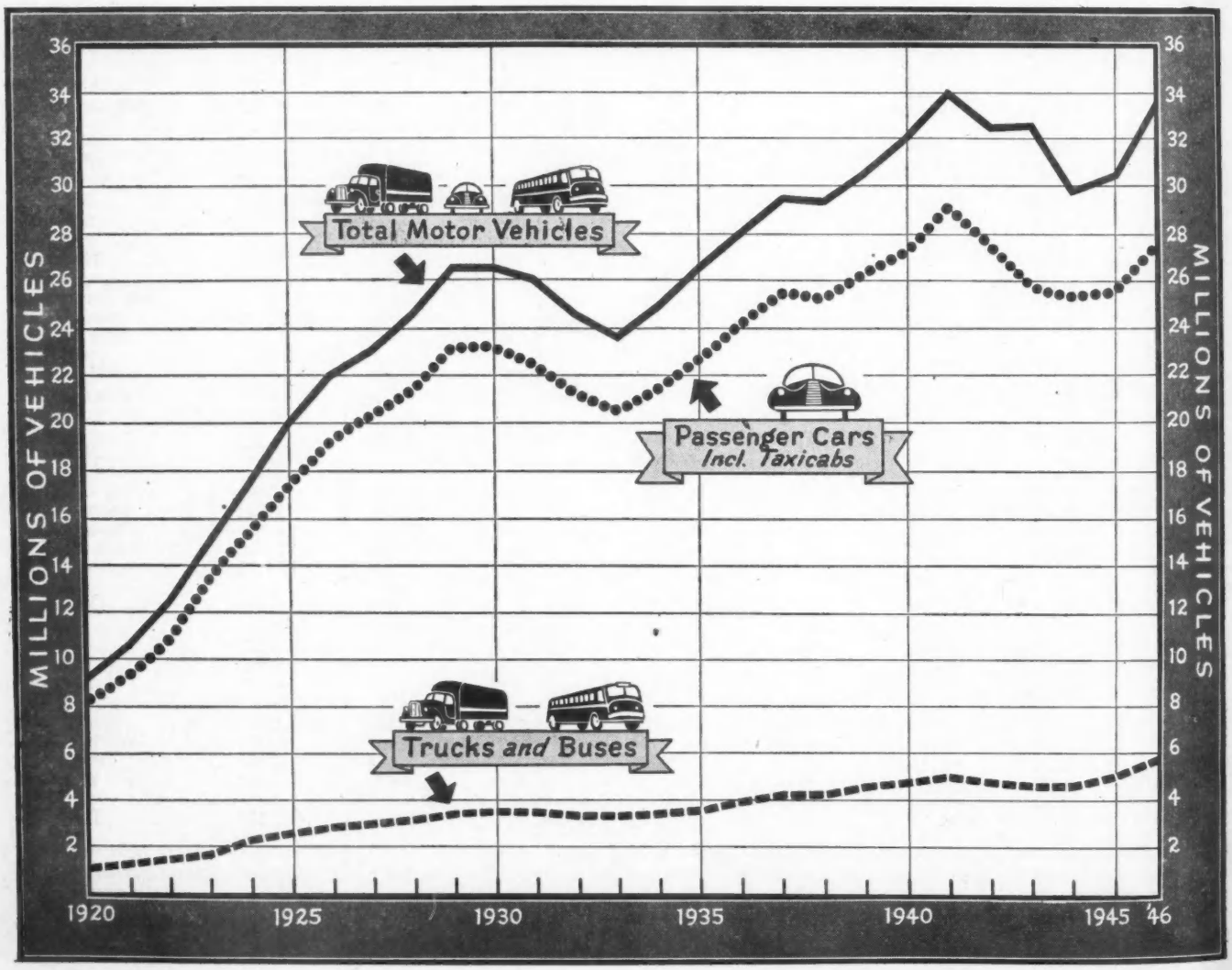
Total U. S. Motor Vehicle Registrations by Years

Showing Percentage Increases and Decreases

Year	Passenger Cars	Trucks and Buses	Total Motor Vehicles	Per Cent Increase
1897	90	.....	90	....
1898	800	.....	800	....
1899	3,200	.....	3,200	....
1900	8,000	.....	8,000	....
1901	14,800	.....	14,800	....
1902	23,000	.....	23,000	....
1903	32,920	.....	32,920	....
1904	54,590	410	55,000	....
1905	77,400	600	78,000	42
1906	105,900	1,100	107,000	37
1907	140,300	1,700	142,000	33
1908	194,400	3,100	197,500	39
1909	305,950	6,050	312,000	58
1910	458,500	10,000	468,500	50
1911	619,500	20,000	639,500	36
1912	902,600	41,400	944,000	48
1913	1,194,161	63,800	1,258,062	33
1914	1,625,739	85,600	1,711,339	36
1915	2,309,666	136,000	2,445,666	43
1916	2,297,996	215,000	3,512,996	44
1917	4,657,340	326,000	4,983,340	42
1918	5,621,617	525,000	6,146,617	23
1919	6,771,074	794,372	7,565,446	23
1920	8,225,859	1,006,082	9,231,941	22
1921	9,346,195	1,118,520	10,464,715	13
1922	10,864,128	1,375,725	12,239,853	17
1923	13,479,608	1,612,569	15,092,177	23
1924	15,460,649	2,134,724	17,595,373	17
1925	17,496,420	2,440,854	19,937,274	13
1926	19,237,171	2,764,222	22,001,393	10
1927	20,219,224	2,914,019	23,133,243	5
1928	21,379,125	3,113,999	24,493,124	6
1929	23,121,589	3,379,854	26,501,443	8
1930	23,183,241	3,473,831	26,657,072	0.2
1931*	22,567,381	3,426,515	25,993,896	−2.5
1932*	21,139,092	3,202,730	24,341,822	−6.4
1933*	20,557,493	3,292,439	23,849,932	−2.0
1934*	21,535,199	3,346,268	24,881,467	4.3
1935*	22,630,715	3,595,042	26,225,757	5.2
1936*	24,161,820	3,929,889	28,091,709	7.2
1937*	25,476,786	4,172,484	29,649,270	5.6
1938*	25,264,589	4,153,389	29,417,978	−0.8
1939*	26,147,798	4,496,770	30,644,568	4.2
1940*	27,240,475	4,683,376	31,923,851	4.2
1941*	29,240,417	4,911,990	34,152,407	7.0
1942*	27,683,529	4,741,298	32,424,827	−5.1
1943*	25,841,215	4,657,882	30,499,097	−6.0
1944*	25,298,639	4,611,966	29,910,605	−2.0
1945*	25,398,824	5,025,233	30,424,057	1.7
1946*	27,728,889	5,801,541	33,530,430	10.2

* Automotive and Aviation Industries count, all others Bureau of Public Roads.

1946 TRUCK REGISTRATIONS REACH NEW PEAK



World Registrations by Continental Divisions and Countries

By Special Arrangement with The American Automobile (Overseas Edition)

AFRICA

	Motor Vehicles	*Cars	*Trucks	*Buses	*Motor-cycles
Angola	3,731	1,171	2,560	†	561
Algeria	49,683	27,870	20,900	913	1,900
Belgian Congo	11,348	5,012	6,338	†	1,186
British East Africa	22,106	13,067	9,039	†	.....
British West Africa	12,346	5,151	7,046	149	.....
Canary Islands	5,451	3,497	1,547	407	.....
Egypt	37,316	28,771	6,708	1,837	2,931
Eritrea	2,079	.....	.....	.....	.....
Ethiopia	5,441	2,928	2,476	37	387
French Equatorial Africa	3,240	640	2,600	†	.....
French West Africa	17,000	6,500	10,500	†	.....
Liberia	286	58	219	9	.....
Libya	500	.....	.....	.....	.....
Madeira	931	650	186	95	12
Madagascar	8,000	.....	.....	.....	.....
Mauritius	3,300	2,525	625	150	.....
Morocco	10,650	6,850	3,350	450	.....
Nyasaland	1,411	770	641	.....	196
Portuguese East Africa	8,111	3,548	3,434	1,129	.....
Reunion Island	1,400	.....	.....	.....	.....
Rhodesia	29,833	22,085	7,650	98	1,242
Seychelles Islands	150	.....	.....	.....	.....
Southwest Africa	7,921	4,485	3,395	41	216
Sudan	3,201	1,491	1,710	.....	113
Tangier	500	.....	.....	.....	.....
Tunisia	8,175	5,385	2,550	240	1,900
Union of South Africa	354,740	290,000	62,471	2,269	19,000
Total 1946	608,850	*432,454	*155,943	*7,824	29,644
Total 1945 (Revised)	522,646	*393,590	*120,852	*6,215	.....
Total 1939	692,974	*543,740	*140,090	*5,750	.....

† Included with trucks.
* Not complete for all territories.

ASIA

	Motor Vehicles	*Cars	*Trucks	*Buses	Motor-cycles
Afghanistan	1,700	300	1,400	.....	.....
Arabia	4,500	2,100	2,400	†	.....
Bahrein Island	650	.....	.....	.....	.....
British Malaya	7,375	.....	.....	.....	1,200
British North Borneo	151	34	48	69	19
Burma	4,000	.....	.....	.....	.....
Ceylon	26,000	18,500	7,500	†	.....
China	26,500	6,500	20,000	†	.....
Cyprus	2,600	1,500	1,100	†	.....
French Indo-China	6,000	4,000	2,000	†	.....
Hongkong	2,500	.....	.....	.....	.....
India	170,000	110,000	60,000	**	.....
Indonisia	12,000	.....	.....	.....	.....
Iran	12,900	5,900	6,000	1,000	.....
Iraq	6,623	3,764	2,859	.....	.....
Japan	47,000	10,000	30,000	7,000	.....
Korea	.....	.....	.....	.....	.....
Manchuria	.....	.....	.....	.....	.....
Palestine	10,862	4,632	5,030	1,200	1,630
Philippines	51,600	21,600	30,000	*	400
Siam	2,000	.....	.....	.....	.....
Syria and Lebanon	13,500	8,500	5,000	.....	.....
Trans-Jordan	627	335	259	33	.....
Turkey	13,000	4,000	9,000	.....	.....
Total 1946	422,088	*201,665	*182,596	*9,302	3,249
Total 1945 (Revised)	294,771	*161,061	*101,009	*29,551	.....
Total 1939	695,738	*427,083	*234,337	*32,218	.....

*Not complete for all territories
†Included with trucks
**Included with cars

OCEANIA

	Motor Vehicles	*Cars	*Trucks	*Buses	Motor-cycles
Australia	884,680	528,507	356,173	†	76,379
Cook Islands	74	29	45	.....	5
French Oceania	522	.....	.....	.....	.....
Fiji Islands	2,232	1,072	849	311	161
Hawaii	72,178	56,422	14,738	1,018	.....
New Zealand	287,398	214,913	71,385	1,100	16,500
Other Oceania	1,500	.....	.....	.....	.....
Total 1946	1,248,584	*800,943	*443,190	*2,429	93,045
Total 1945 (Revised)	1,144,262	*790,412	*347,405	*5,100	.....
Total 1939	1,200,808	*887,409	*312,799	†	.....

*Not complete for all territories.
†Included with trucks.

AMERICA

	Motor Vehicles	*Cars	*Trucks	*Buses	*Motor-cycles
Alaska	9,000	.....	.....	.....	.....
Antigua	384	327	42	15	.....
Argentina	285,610	204,535	81,075	*	.....
Bahamas	1,450	1,050	400	†	.....
Barbados	2,768	2,049	618	101	.....
Bermuda	629	399	224	6	.....
Bolivia	8,764	2,746	5,729	289	77
Brazil	230,716	119,116	104,202	7,398	12,118
British Guiana	1,988	1,413	467	106	167
British Honduras	415	159	254	2	77
Canada	1,587,795	1,220,620	360,550	6,625	16,725
Chile	52,833	29,443	20,090	3,300	1,018
Colombia	36,000	17,000	15,000	4,000	241
Costa Rica	3,950	2,550	1,400	†	.....
Cuba	43,434	24,168	16,388	2,878	989
Dominica	215	180	25	10	.....
Dominican Republic	2,270	1,270	1,000	†	.....
Dutch Guiana	700	.....	.....	.....	.....
Ecuador	6,000	.....	.....	.....	.....
French Guiana	425	.....	.....	.....	.....
Grenada	375	.....	.....	.....	.....
Guadeloupe	2,350	1,800	550	†	.....
Guatemala	4,200	2,500	1,700	†	.....
Haiti	2,916	1,914	614	388	42
Honduras	1,320	650	650	20	.....
Jamaica	6,555	4,845	1,580	130	235
Martinique	110	32	70	8	10
Mexico	215,000	126,000	77,500	11,500	.....
Montserrat	84	54	30	*	3
Netherlands W.I.	5,958	5,265	611	82	250
Newfoundland	8,408	5,408	2,840	160	122
Nicaragua	1,607	.....	.....	.....	.....
Nova Scotia	60,611	42,605	18,006	†	585
Panama	15,585	11,525	2,860	1,200	320
Paraguay	1,989	950	795	244	.....
Peru	31,817	17,215	12,943	1,659	.....
Puerto Rico	31,708	19,771	11,937	†	373
St. Kitts-Nevis	291	198	93	.....	.....
St. Lucia	245	170	40	35	.....
St. Pierre-Miquelon	125	.....	.....	.....	.....
St. Vincent	321	250	50	21	.....
El Salvador	3,170	2,212	958	†	.....
Trinidad and Tobago	9,350	5,950	3,050	350	.....
Uruguay	33,970	23,850	10,120	†	.....
United States	33,530,430	27,728,889	5,698,294	103,247	290,401
Venezuela	40,447	18,172	20,185	2,090	1,039
Virgin Islands	1,054	575	466	13	9
Total 1946	36,320,140	29,647,825	6,473,406	145,877	324,801
Total 1946 (Ex U.S.)	2,789,710	*1,918,936	*775,112	*42,630	34,400
Total 1945, Revised	32,882,375	*27,159,432	*5,554,841	*161,085	.....
Total 1945 (Ex. U.S.)	2,458,318	*1,760,608	*648,263	*42,430	.....
Total 1939 (Ex. U.S.)	2,309,100	*1,785,842	*498,077	*27,488	.....

* Not complete for all territories.
† Included with trucks.

EUROPE

	Motor Vehicles	*Cars	*Trucks	*Buses	Motor-cycles
Aegean Islands	400	225	125	50	.....
Albania	1,750	500	1,200	50	.....
Austria	40,489	17,596	22,028	865	41,707
Azores	900	778	85	37	76
Belgium	163,100	88,300	73,700	1,100	66,000
Bulgaria	8,500	4,500	3,000	1,000	.....
Czechoslovakia	66,000	18,000	45,000	3,000	50,000
Denmark	115,000	80,000	34,000	1,000	5,515
Eire	67,067	49,293	17,006	768	4,349
Faroe Islands	90	.....	.....	.....	.....
Finland	30,000	7,000	23,000	.....	.....
France	1,300,000	800,000	500,000	†	.....
Germany	142,527	76,340	66,187	.....	.....
Gibraltar	1,065	785	230	50	90
Great Britain	2,448,065	1,786,800	556,592	104,673‡	438,945
Greece	14,365	4,750	7,940	1,675	1,250
Holland	109,964	52,386	54,807	2,771	.....
Hungary	15,099	7,092	7,849	158	13,541
Iceland	4,889	2,092	2,590	207	207
Italy	205,000	120,000	85,000	†	.....
Luxembourg	7,042	4,154	2,816	72	1,745
Malta	5,490	3,163	1,827	500	892
Gozo	.....	70	62	13	25
Monaco	1,500	.....	.....	.....	.....
Northern Ireland	51,610	38,640	12,062	908	4,669
Norway	81,842	45,565	34,168	2,109	11,300
Poland	41,000	.....	.....	.....	5,200
Portugal	45,000	33,000	12,000	†	.....
Rumania	14,395	9,820	3,878	697	2,586
Spain	120,000	70,000	50,000	.....	.....
Sweden	200,000	135,000	60,000	5,000	62,000
Switzerland	90,260	62,660	26,000	1,600	25,000
U.S.S.R. (Russia)	1,200,000	180,000	1,020,000	†	.....
Yugoslavia	11,000	.....	.....	.....	.....
Total 1946	6,603,409	*3,698,509	*2,723,152	*128,303	735,097
Total 1945 (Revised)	3,985,455	*1,697,588	*2,042,135	*72,676	.....
Total 1939	9,436,555	*6,704,286	*2,511,122	*150,885	.....

*Not complete for all territories.
†Included with trucks.
‡Includes taxicabs.

CARS IN USE BY MAKES, STATES

As of July 1, 1946

Model	Ala.	Ariz.	Ark.	Calif.	Colo.	Conn.	Del.	D. C.	Fla.	Ga.	Idaho	Ill.	Ind.	Iowa	Kan.	Ky.	La.	Me.	Md.	Mass.	Mich.	Minn.	Miss.	Mo.	Mont.
BUICK																									
6 Mo. '46	208	53	87	780	89	380	41	177	260	324	50	688	350	301	132	220	289	115	281	228	2604	390	101	309	110
'45-'42	958	334	727	5471	792	1516	223	604	2196	1651	357	7074	2414	1302	1214	923	1489	442	1504	2727	5815	1565	898	1628	303
'41	3216	1648	1954	34960	3418	6729	954	3043	8395	5192	1336	27060	11587	4889	4403	3375	5262	1674	6406	12110	24107	5931	2597	8218	1170
'40	2062	1044	1137	31980	2531	6100	807	2386	5698	3001	872	19816	7536	3786	3075	2604	2920	1631	5426	10665	14057	4959	1445	6031	831
'39	1518	746	842	22490	1851	4912	569	1480	3994	2179	557	13749	4199	3100	2342	1934	1979	1182	3826	7296	8980	3769	1077	4476	630
'38	1101	662	561	18075	1429	4333	434	1074	2820	1610	434	10605	3323	2463	1719	1400	1221	1026	2916	5589	5958	2876	563	3125	486
'37	1189	839	719	22504	2112	5549	620	1074	3165	1740	616	13056	4960	2800	2246	1920	1193	1240	4172	7005	9901	3397	678	4084	637
'36	777	609	511	16143	1609	3913	448	596	2179	1186	394	7294	3414	2105	1777	1325	812	1071	3007	5862	5707	2659	462	2761	402
'35	219	194	148	6379	377	1066	117	127	731	389	81	2397	1679	745	543	384	187	333	785	1622	1284	884	139	891	89
'34	164	149	125	3809	434	1172	121	98	536	309	114	1841	755	518	474	343	128	382	817	1814	995	715	112	685	104
'33	76	90	44	2401	222	821	70	52	298	173	50	1142	365	217	230	167	74	194	470	990	425	444	47	412	60
'32	77	85	58	2130	273	668	66	84	247	168	40	684	334	250	236	145	78	262	440	938	457	394	33	423	55
'31	54	108	77	3147	404	827	69	45	253	141	88	854	442	525	317	163	62	329	470	887	640	639	48	419	92
'30	41	101	46	2878	249	453	56	44	140	85	81	895	284	404	317	123	36	143	378	474	534	451	41	353	67
Before '30	91	275	108	9391	551	648	60	40	540	229	281	2033	1048	1532	848	221	100	382	406	610	1114	1353	93	1007	206
Unid.*	20	10	21	179	21	28	9	333	148	106	12	307	72	24	45	30	75	7	62	31	3591	10	29	71	6
Total	11771	6947	7165	182717	16362	39115	4664	11257	31600	18483	5363	109495	42762	24961	19918	15277	15905	10413	31366	58846	86169	30436	8363	34873	5202
CADILLAC																									
6 Mo. '46	27	24	14	309	23	154	14	57	124	96	12	191	67	32	19	42	66	33	63	51	642	50	9	53	9
'45-'42	103	46	60	910	136	337	50	111	487	230	17	1455	311	98	78	85	237	66	209	585	1066	165	76	243	24
'41	400	266	205	8916	483	1555	206	642	2023	784	99	5527	1326	330	344	383	760	295	863	2475	2815	648	227	1326	99
'40	52	70	40	2992	119	361	48	147	443	140	19	1090	257	67	55	74	119	62	203	602	390	131	24	300	18
'39	64	58	36	1929	126	334	46	135	357	138	17	1066	189	62	71	93	123	48	193	487	338	154	31	270	22
'38	45	40	25	1588	70	246	31	89	303	93	8	645	163	47	40	54	55	35	132	389	237	72	19	209	11
'37	60	44	20	1594	115	426	48	96	340	126	7	775	193	75	71	95	88	70	202	645	353	115	21	183	9
'36	36	36	12	1549	75	334	38	73	261	90	14	646	192	78	74	70	54	59	159	537	288	100	15	182	8
'35	6	19	7	794	16	81	8	19	51	24	5	117	48	21	20	24	16	23	33	134	62	35	8	46	4
'34	7	10	9	455	28	110	8	16	39	15	3	106	34	16	16	24	9	20	32	132	34	17	2	40	3
'33	2	3	3	246	11	43	4	4	20	7		41	13	11	7	21	6	8	16	58	22	17	4	16	2
'32	4	9	2	309	14	61	6	1	21	19	2	60	16	13	6	5	9	6	20	45	22	16	5	17	2
'31	11	15	9	513	26	118	11	14	58	8	4	98	44	18	6	18	10	24	44	139	61	31	7	32	3
'30	1	8	8	428	10	65	4	8	18	7	3	53	15	9	8	8	6	8	18	61	20	13	2	8	2
Before '30	10	23	8	852	29	98	7	1	30	11	5	92	39	28	15	24	5	13	30	88	40	54	6	42	16
Unid.*	2	3	1	86	2	3	2	19	21	11	3	40	4	2	1	2	6		4	13	253		1	11	
Total	830	674	459	23470	1283	4326	531	1432	4596	1799	218	12002	2911	907	831	1022	1569	770	2221	6441	6643	1618	457	2978	242
CHEVROLET																									
6 Mo. '46	1312	73	573	3208	278	915	127	509	998	1547	244	2160	1005	1548	734	999	1289	332	745	706	4357	1352	549	1505	319
'45-'42	4332	692	2622	11144	2058	2763	601	1053	4513	5699	955	13246	6989	5345	4259	3418	4401	1207	3540	4923	13590	5287	2957	5594	965
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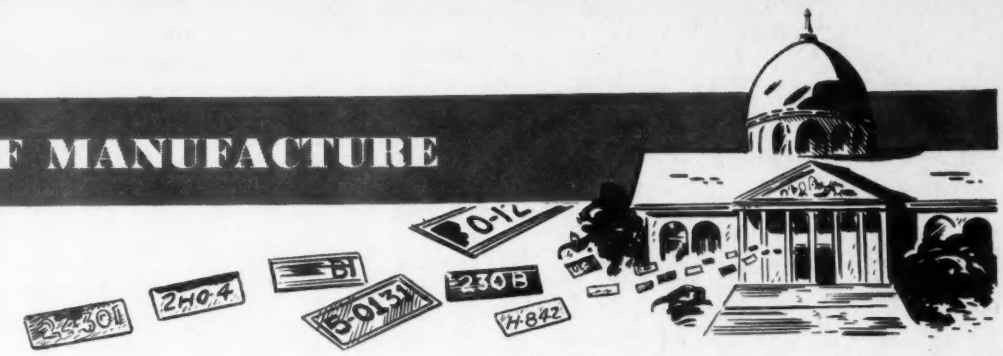
'40	11616	3005	6920	67930	6593	10902	2181	3614	12670	13445	3371	42533	23865	18834	14095	11068	11443	4314	12853	19002	37925	17714	7942	26065	3528
'39	9875	2306	5744	45134	6291	7734	1503	2037	9252	11031	2442	31118	15121	16886	11454	8563	8544	3470	8847	15236	24523	14108	6517	19816	2582
'38	6005	1870	4157	38316	5171	5723	1171	1126	6627	6448	1945	24765	13214	15068	11428	7387	6587	2712	6889	11044	15385	14824	4549	15741	1955
'37	11131	3262	6149	57801	7422	11222	2150	1595	10728	11509	3785	40116	25639	21298	16519	12152	8809	4788	12667	20967	38256	20031	6948	22799	3553
'36	11241	3359	7227	65060	9709	10711	2023	1417	10942	12226	4274	43237	29732	24430	19498	13283	9861	5187	11919	20631	37658	23869	7680	27021	4286
'35	5594	1792	4034	41360	5196	6089	980	584	5383	7310	2410	20941	16289	13114	11109	7984	4429	2849	5773	11431	15709	13365	4104	14693	2506
'34	4195	1518	3061	26696	4307	4704	791	273	4394	5177	1998	13894	10072	9854	8668	5941	3351	2550	4655	8475	10136	10122	3058	10826	1732
'33	2426	964	2403	22394	2885	4004	554	150	2676	3855	1053	9602	6161	6897	6023	4646	2115	1586	3258	5588	5865	7414	1918	8938	1057
'32	1026	660	1225	11043	1624	2302	349	154	1471	1710	539	5704	3402	4033	3331	2641	1256	1076	2049	2839	3534	5147	931	5496	612
'31	1599	826	1719	19742	3259	2363	363	121	2134	2659	1132	7954	5274	8352	6131	3995	1396	1376	2140	2569	4877	8749	1105	9001	968
'30	614	534	805	13089	2039	895	142	39	811	859	938	4722	2753	6233	3968	1815	557	682	837	839	2410	5313	611	5346	691
Before '30	1314	774	1244	16294	2327	766	141	31	946	1417	1254	6077	4567	7765	5815	2108	988	638	836	564	3425	6773	1284	7771	1202
Unid.*	90	62	102	822	92	91	31	854	572	703	65	827	197	150	389	104	360	13	186	189	22677	76	221	347	57
Total	88249	25389	57379	518304	68800	84413	15812	18717	91354	104049	30468	323216	194718	182120	142702	99401	81162	37920	93117	149430	298432	175597	61157	210617	30294
CHRYSLER																									
6 Mo. '46	204	39	102	1671	89	404	36	131	359	245	81	776	259	382	152	276	198	119	291	220	1796	548	118	237	103
'45-'42	248	139	208	2741	256	554	66	288	875	458	112	2274	789	377	357	283	437	109	524	830	1643	697	187	567	124
'41	1061	767	636	18841	1449	2714	341	1314	3672	1663	510	10913	4035	2031	1691	1372	1504	535	2730	4261	7021	2854	654	3128	660
'40	610	397	364	11673	832	1522	194	624	1827	873	319	5535	2468	1221	952	941	715	426	1565	2515	3800	1655	429	2036	374
'39	447	306	269	7852	582	1108	138	466	1205	590	188	4197	1448	924	790	694	572	274	1106	1913	2372	1223	208	1289	291
'38	256	217	184	5299	356	786	102	274	768	345	181	2433	1173	623	551	582	386	242	816	1273	1306	909	166	937	179
'37	409	455	290	8963	909	1693	214	365	1337	687	369	5871	2475	1295	1064	1054	559	442	1737	3013	3047	1856	271	1579	438
'36	228	222	178	6195	518	867	98	183	711	353	185	2795	1345	789	598	590	242	204	805	1365	1303	1022	142	951	286
'35	111	125	87	3153	279	462	53	72	322	194	123	1472	757	494	366	389	102	122	423	801	685	645	79	521	180
'34	82	65	80	1532	163	378	42	30	194	151	75	651	353	265	230	239	64	94	333	528	335	320	61	294	89
'33	57	33	33	1337	101	303	24	32	153	88	33	527	239	121	122	229	57	59	191	345	230	214	30	272	38
'32	40	37	25	1065	101	214	23	27	124	66	22	328	177	123	90	134	36	62	178	242	183	276	22	184	28
'31	41	42	26	1419	130	246	19	12	182	65	46	408	265	230	124	186	51	86	154	273	235	351	19	230	50
'30	34	62	41	1289	118	175	17	9	90	35	52	436	216	240	157	153	41	101	132	165	160	328	28	200	41
Before '30	51	122	70	4104	326	299	23	10	116	62	135	811	540	523	436	210	55	124	179	189	437	684	54	450	180
Unid.*	6	4	10	423	11	15	1	136	53	33	16	96	16	16	23	13	30	2	9	19	1944	8	18	21	6
Total	3885	3032	2603	77557	6220	11740	1391	3973	11988	5908	2447	39523	16555	9654	7703	7345	5049	3001	11173	17952	26497	13590	2486	12894	3092
DE SOTO																									
6 Mo. '46	204	25	111	2118	58	394	28	120	348	285	74	754	275	287	134	208	201	100	205	247	1682	392	70	231	91
'45-'42	230	121	153	2439	167	342	37	242	537	365	92	1486	692	251	302	201	345	104	276	706	998	403	116	430	58
'41	749	423	310	13529	829	1857	173	772	1953	972	383	6722	2965	978	1012	650	881	382	1329	3186	4523	1505	356	2242	228
'40	472	249	234	8648	512	1393	133	453	1048	547	234	4845	1964	665	674	526	542	327	1006	2057	2655	1203	242	1697	206
'39	414	207	192	6299	423	1123	99	326	808	439	200	3484	1434	606	501	457	361	258	759	1775	1812	974	188	1442	121
'38	226	188	112	4563	324	823	68	128	469	261	123	2289	992	394	488	308	278	196	510	1028	1088	759	119	913	87
'37	423	355	241	8159	735	1734	144	210	870	491	268	5241	2513	866	941	733	335	407	1080	2184	2934	1660	165	1834	194
'36	128	216	91	5792	337	748	60	77	422	224	159	2291	1281	526	456	343	159	110	453	809	1027	712	71	798	153
'35	66	99	65	3136	158	434	30	38	214	118	89	1020	670	349	271	213	73	62	229	398	475	377	38	390	67
'34	20	52	32	932	78	112	9	9	103	38	44	329	192	81	90	63	44	42	68	193	173	94	13	160	38
'33	18	28	29	1556	74	239	12	8	74	41	26	498	298	87	123	124	42	54	81	227	175	123	12	265	22
'32	16	40	15	1168	52	159	14	10	63	32	26	343	255	100	102	118	29	44	108	140	206	122	11	293	13
'31	31	44	25	1218	53	200	9	10	60	30	36	312	326	97	79	90	53	45	68	87	204	119	14	162	22
'30	25	22	17	891	58	138	6	4	33	18	37	284	154	88	67	57	29	36	46	64	145	91	12	109	29
Before '30	15	52	27	1261	118	105	9	4	42	19	49	373	249	97	121	64	20	32	66	68	173	129	16	156	41
Unid.*	7	1	8	606	1	7	1	81	35	19	4	82	24	1	11	9	11	1	12	21	1189	1	5	17	2
Total	3044	2122	1662	62315	3977	9808	832	2492	7079	3899	1844	30353	14284	5471	5372	4164	3403	2200	6296	13190	19459	8864	1448	11139	1372

Unid.*—Unidentified as to year of manufacture.

Data from R. L. Polk & Co.

AND YEAR OF MANUFACTURE



As of July 1, 1946

Model	Neb.	Nev.	N. H.	N. J.	N. M.	N. Y.	N. C.	N. D.	Ohio	Okla.	Ore.	Pa.†	R. I.	S. C.	S. D.	Tenn.	Tex.	Utah	Vt.	Va.	Wash.	W.Va.	Wis.	Wyo.	Totals
BUICK																									
6 Mo. '46	55	34	57	740	95	953	278	.....	1777	160	141	750	40	41	76	255	979	118	34	189	114	15	381	28	15875
'45-'42	596	138	138	3393	274	7699	1341	271	6146	897	1064	5768	477	646	188	1206	5863	445	175	855	1512	591	1722	233	85565
'41	2462	526	979	14294	1097	35684	5395	933	26016	4002	4801	24469	2107	2970	816	4670	18520	1585	771	5117	6932	2402	7540	811	364533
'40	1776	369	1088	12590	720	30745	3283	666	18718	2990	2738	20397	1992	1611	608	2595	10039	1083	742	4213	4328	2063	5688	623	274065
'39	1404	244	774	9431	470	21215	2610	531	12737	2319	2051	14104	1515	1063	523	2105	6939	771	545	3008	3407	1465	4358	437	193703
'38	1121	189	553	8488	375	18490	2027	372	8881	1671	1625	10948	990	709	406	1421	5212	627	444	2111	2486	1231	3222	316	149691
'37	1353	262	693	11018	493	22864	2157	333	13554	2035	2362	15072	1221	849	498	1635	5330	795	535	2301	3559	1513	4583	389	192800
'36	1129	174	684	7639	331	18227	1430	295	8157	1589	1535	11391	1014	535	486	1087	3612	564	558	1637	2297	1029	3184	326	135993
'35	339	30	221	2049	92	5065	567	140	2269	612	302	2799	310	200	167	318	1099	123	146	685	538	212	1021	86	41180
'34	306	36	263	2297	87	5168	503	82	1964	391	370	2826	336	156	113	251	850	145	179	393	639	195	857	73	35194
'33	139	28	120	1458	40	3561	202	53	1134	181	211	1560	211	71	32	104	361	78	93	196	364	102	481	40	20354
'32	162	28	122	1302	28	3390	172	40	904	139	216	1417	163	72	37	102	325	62	128	177	405	69	473	52	18610
'31	254	32	165	1282	59	3100	181	97	979	193	412	1627	175	90	89	126	456	78	149	219	688	102	620	57	22330
'30	277	35	95	840	42	1813	136	68	819	159	335	1203	106	53	69	99	324	63	106	112	412	46	451	40	16377
Before '30	1311	116	180	980	110	2359	265	344	1873	511	793	1989	115	119	388	178	722	183	217	248	1190	165	1592	135	39249
Unid.*	18	11	4	62	8	230	18	1	89	31	7	101	17	24	620	82	105	4	1	13	2	8	32	2	6739
Total	12702	2252	6136	77863	4321	180563	20565	4226	106017	17880	18963	116421	10789	9209	5116	16234	60736	6724	4823	21274	28873	11208	36205	3648	1612258
CADILLAC																									
6 Mo. '46	14	12	15	252	13	466	63	.....	233	52	35	201	11	.....	9	57	191	17	7	37	35	5	62	5	3973
'45-'42	58	41	21	721	23	1939	203	16	792	62	131	947	94	62	7	151	807	49	20	66	189	69	198	18	13889
'41	191	161	145	2782	138	7522	674	36	3412	588	395	3854	428	283	43	658	2828	186	83	652	715	310	841	70	59992
'40	23	36	51	719	32	1625	108	4	762	175	80	828	125	35	11	110	550	35	17	194	140	60	230	11	13784
'39	31	34	40	712	28	1586	100	4	726	108	97	784	122	45	6	103	463	34	16	122	127	40	200	7	11932
'38	14	18	31	530	15	1023	68	12	421	97	64	487	73	22	3	55	256	30	9	97	93	29	97	5	8195
'37	27	23	45	736	25	1750	102	5	794	81	93	856	94	39	6	77	315	28	30	117	163	67	185	10	11439
'36	23	20	26	633	25	1346	80	7	585	73	89	636	84	18	10	77	263	28	23	82	129	41	136	9	9423
'35	7	3	12	152	4	299	16	.....	111	21	21	147	15	8	.....	19	38	12	5	30	31	7	34	2	2615
'34	9	5	3	139	6	289	16	3	108	14	27	150	17	2	2	10	52	7	5	14	39	3	25	.....	2130
'33	5	3	5	91	.....	194	9	2	73	4	9	64	12	3	1	9	15	2	7	8	15	6	18	1	1141
'32	2	5	1	100	4	213	11	1	59	11	15	83	5	3	1	11	18	4	6	14	19	7	14	.....	1297
'31	12	4	16	194	5	402	16	4	94	14	36	162	26	10	3	15	41	18	12	19	37	9	22	4	2497
'30	6	7	3	81	6	165	11	1	59	7	18	82	9	3	.....	5	22	9	6	4	28	1	29	2	1355
Before '30	13	9	15	103	11	219	22	12	90	30	42	132	11	8	4	16	37	22	15	13	50	19	22	3	2484
Unid.*	2	1	.....	15	.....	26	6	.....	14	5	2	13	.....	2	11	8	19	.....	1	3	.....	.....	.....	.....	618
Total	437	382	429	7960	335	19064	1505	107	8333	1342	1154	9426	1128	543	117	1381	5915	484	262	1472	1810	673	2113	147	146744
CHEVROLET																									
6 Mo. '46	274	66	230	1847	311	2485	1613	5	5426	985	740	2290	146	816	289	1439	4013	300	106	909	480	86	1189	58	53487
'45-'42	2944	312	309	5831	960	13934	5104	1333	16049	2892	2900	13769	951	3163	974	4764	17948	950	453	2189	3702	2119	4890	661	221274
'41	12509	1155	2730	27917	3938	63001	21321	5903	66617	15841	13406	60956	4801	12617	4649	17855	63014	4360	1971	18882	18662	8908	22361	2515	980605
'40	9179	804	2528	23999	2878	50663	15920	4668	49374	13474	9465	48241	4258	9054	3856	13015	44494	3741	1821	15582	13307	7949	18224	1955	761877
'39	8432	628	2163	17193	2426	36214	14526	3304	31358	10621	6902	33519	3191	7827	3521	10338	33249	2649	1358	11763	10172	5971	14205	1537	563201
'38	7290	482	1652	14095	1929	29765	10748	3222	22820	9378	5536	25805	2168	5176	2989	7333	28186	2224	1169	8515	7649	4859	12949	1190	447036
'37	10491	779	3005	23418	2764	51015	18286	4136	50648	12212	10311	50187	4460	8660	4277	11661	37970	4083	2037	14412	15355	9437	22301	1794	754995
'36	12746	743	3133	22877	3103	53645	16497	4290	53734	14853	11509	46464	4398	8636	5005	12822	43699	4330	2174	14772	16581	10364	26490	1965	811311
'35	6744	431	2062	12365	1605	27836	11866	3202	24548	9264	5261	21911	2713	5553	2960	7805	23194	2326	1291	9639	8233	4458	13833	1155	435285
'34	5161	330	1763	9842	1322	22676	9310	2299	17857	5902	4342	17625	1946	4136	2186	5374	17450	1909	913	5766	6981	3164	11318	796	320816
'33	3986	213	1332	7156	784	17616	5797	1634	11308	4629	2978	12083	1580	3585	1435	3537	15177	1068	698	3508	4916	2229	6858	510	229049
'32	2167	134	796	4370	380	11582	2438	1049	6611	2213	1645	7692	736	1319	854	2043	6642	635	595	2335	2290	1213	4848	322	129063
'31	5277	221	831	4053	678	11371	4088	1687	8622	3004	3126	8618	702	2477	1721	3233	8702	929	649	3237	4165	1512	7230	541	188478
'30	3915	130	396	1459	419	4579	1629	1256	4368	2214	1943	3722	207	805	1386	1667	5285	649	314	1516	2776	888	4648	316	104029
Before '30	5877	202	373	1345	596	4424	2849	2296	6829	2497	2757	3711	159	1073	2278	2102	8497	686	419	1589	3680	997	5715	408	137680
Unid.*	122	6	12	133	57	431	133	17	336	235	59	403	22	97	3996	429	489	16	16	48	4	59	217	16	36630
Total	97114	6636	23315	177900	24150	401237	142125	40301	376505	110214	82880	356996	32438	74994	42376	105417	358009	30855	15984	114662	118953	64013	177276	15739	6172816
CHRYSLER																									
6 Mo. '46	78	54	86	1091	68	1169	263	3	1382	205	273	1119	46	25	69	292	820	93	38	275	282	59	375	22	17023
'45-'42	250	83	40	1313	110	3376	480	94	2263	366	373	2619	153	216	50	338	1711	171	54	234	489	256	615	87	30884
'41	964	318	266	6300	456	15124	2083	326	10599	1418	2296	13437	825	887	327	1725	5758	608	239	2134	3005	1391	2699	367	149927
'40	616	144	222	3761	266	8809	1172	203	6151	880	1226	8218	533	529	207	895	2886	337	185	1349	1599	870	1581	223	86729
'39	430	96	177	2979	189	6834	873	144	4375	614	918	5475	430	356	176	601	2054	257	138	865	1084	561	1281	160	61519
'38	390	56	132	2216	128	5311	596	104	2789	432	615	4086	236	200	133	455	1558	178	108	593	783	408	878	102	42829
'37	589	139	293	3963	247	9563	1000	204	7538	700	1188	9645	725	382	264	770	2224	438	207	985	1814	1074	2007	196	86545
'36	359	90	142	1920	125	4900	528	139	3205	480	682	4421	382	172	153	478	1226	243	153	558	932	551	930	100	45054
'35	200	32	81	1018	61	2780	311	103	1754	269	412	2367	216	102	100	212	703	127	110	250	598	269	706	47	24843
'34	108	19	70	625	44	1615	220	51	996	159	265	2110	110	113	30	129	422	109	56	165	422	214	370	34	15095
'33	66	12	44	510	21	1486	147	19	664	94	173	1064	99	50	16	80	261	46	49	110	261	107	253	18	10516
'32	53	13	48	418	20	1057	116	17	479	78	145	1007	88	43	26	74	183	14	40	83	212	111	199	14	8343
'31	113	26	61	480	18	1390	142	39	543	70	225	832	74	52	41	70	256	30	56	140	346	111	335	32	10372
'30	153	22	52	295	23	908	77	55	451	72	211	792	73	24	75	46	173	37	54	78	421	54	314	33	8803
Before '30	568	35	63	392	57	1079	131	256	885	181	458	1089	68	80	201	89	346	84	104	120	724	111	707	68	18086
Unid.*	7	5	1	20	.....	79	7	.....	41	12	8	48	4	6	231	33	33	2	1	6	3	2	21	3	3502
Total	4944	1144	1778	27301	1833	65480	8146	1757	44115	6030	9468	58329	4062	3237	2099	6287	20614	2774	1590	7945	12973	6149	13271	1496	620070
DE SOTO																									
6 Mo. '46	43	35	66	825	58	1265	279	5	1191	235	299	1018	53	138	51	245	782	96	39	298	353	59	476	27	16578
'45-'42	122	50	40	724	63	2480	294	89	1709	204	305	1606	63	240	37	278	1094	140	50	205	452	162	438	52	21990
'41	458	206	213	3552	201	10079	992	251	7435	767	1556	7987	451	555	150	954	2724	570	175	1350	2643	704	2147	187	95216
'40	296	94	256	2671	114	8495	599	149	5231	574	990	6277	337	337	135	651	1708	375	130	973	1389	589	1491	132	66505
'39	276	93	180	2299	103	6351	479	133	4182	397	742	4398	248	273	106	507	1424	332	104	761	1194	427	1149	113	50973
'38	193	39	132	1583	76	3776	312	77	2527	301	461	3051	141	145	65	327	998	216	101	475	746	360	720	75	33631
'37	415	112	201	3226	162	7168	582	170	6782	622	1062	6586	458	289	150	641	1494	445	149	866	1665	728	1730	106	70526
'36	200	65	82	1317	68	3071	264	55	2587	318	629	2870	244	89	90	263	631	271	83	461	1048	420	919	62	33550
'35	144	22	51	692	40	1741	187	59	1308	191	291	1317	146	56	93	177	393	159	45	206	539	179	486	30	17631
'34	55	13	30	199	16	529	57	19	408	80	141	369	39	14	16	50	123	56	17	56	248	45	141	14	5744
'33	43	7	35	303	9	947	69	14	652	61	166	490	88	15	15	46	112	45	16	72	280	67	213	13	8014
'32	31	22	29	263	16	835	71	7	713	64	175	673	54	34	17	47	103	27	28	75	214	66	197	9	7249
'31	45	14	32	155	10	580	65	14	447	30	180	412	51	40	21	50	177	26	17	88	303	51	195	8	6405
'30	49	17	19	142	16	369	48	19	300	33	176	337	32	18	11	27	130	39	20	47	296	41	189	8	4821
Before '30	127	11	39	143	13	367	36	54	312	59	127	383	17	18	38	24	209	40	19	49	376	28	227	14	6036
Unid.*	5	.....	.....	15	6	52	1	.....	74	6	5	44	6	6	122	17	22	2	3	3	.....	2	27	.....	2584
Total	2502	800	1405	18109	971	48105	4335	1115	35858	3942	7305	37818	2428	2267	1117	4304	12134	2839	996	5985	11746	3908	10725	850	447453

Unid.*—Unidentified as to year of manufacture.

Data from R. L. Polk & Co.

CARS IN USE BY MAKES, STATES

Model	Ala.	Ariz.	Ark.	Calif.	Colo.	Conn.	Del.	D. C.	Fla.	Ga.	Idaho	Ill.	Ind.	Iowa	Kan.	Ky.	La.	Me.	Md.	Mass.	Mich.	Minn.	Miss.	Mo.	Mont.
DODGE																									
6 Mo. '46	558	80	255	3199	221	941	72	281	745	707	171	1925	690	787	389	576	616	335	629	569	3931	1106	262	749	229
'45-'42	851	260	663	3827	546	946	105	671	1546	1175	256	4181	1767	951	949	657	1462	331	914	2138	3382	949	512	1311	221
'41	2711	1095	1355	21526	2327	3763	413	1958	5320	3207	827	15201	6429	3581	2996	2390	3050	1170	3596	8174	13752	3329	1296	5080	765
'40	2204	926	1078	18718	1682	3133	333	1332	3635	2622	724	13151	5464	2976	2375	2192	2339	971	2893	6676	10198	3201	1026	4979	642
'39	2119	797	1114	17966	1740	3036	303	1329	3157	2300	602	12073	4325	3152	2103	2050	2123	943	2652	6538	8587	3066	795	4891	553
'38	966	510	532	11106	931	2055	193	576	1674	1101	347	6060	2626	1772	1387	1395	1262	666	1685	3711	3242	2036	412	2249	346
'37	2287	1245	1313	24073	2498	5773	532	1074	3540	2694	978	17780	7801	3998	3554	3799	2197	1562	4652	9616	12189	5094	903	5744	801
'36	1622	1287	1131	24909	2399	4297	405	898	2832	2042	995	14713	7003	3792	2863	3144	1762	1196	3546	7528	9669	4102	708	4891	918
'35	701	655	582	16672	1206	2136	185	341	1223	946	607	6637	4271	2440	1700	1882	800	613	1615	3338	3609	2371	386	2724	589
'34	370	221	287	5779	492	1118	91	131	693	518	247	2486	1317	889	763	916	425	372	792	1931	1413	835	226	1291	239
'33	166	169	220	4839	462	986	39	77	484	272	158	2057	1224	629	643	739	233	282	336	1158	1311	660	96	1339	173
'32	61	55	55	1549	132	208	17	34	135	111	38	448	257	257	185	173	118	85	148	250	284	201	48	314	32
'31	86	69	70	1987	222	306	17	16	157	105	73	692	474	460	299	321	96	133	147	309	451	397	39	467	47
'30	60	57	70	1539	243	268	14	14	115	70	92	593	358	499	294	181	109	113	122	214	363	330	43	376	59
Before '30	228	259	243	7810	835	607	36	24	275	202	385	1994	1259	2068	1502	574	241	292	313	396	1163	1627	140	1405	379
Unid.*	30	10	16	789	22	30	8	367	130	112	13	270	53	14	60	52	65	2	75	63	7107	18	23	75	8
Total	15050	7695	8984	166288	15958	29603	2763	9123	25661	18184	6513	100261	45318	28265	22062	21041	16898	9066	24115	52609	80651	29322	6915	37885	5990
FORD																									
6 Mo. '46	1825	272	1458	5252	914	1510	257	904	2148	3364	462	5853	2717	3228	1919	1979	2791	627	1362	2052	11653	3646	1513	3039	546
'45-'42	2477	418	2186	6549	1282	1386	245	634	3391	5186	484	8020	3452	3579	2635	1864	3536	622	1315	3089	9434	3854	2452	3161	618
'41	11535	2584	8380	47079	6243	7531	1323	3147	14598	18233	2463	33948	18147	16699	12831	8711	13687	2922	7047	15320	48875	16506	10018	17066	2887
'40	8631	1941	6169	41983	5267	6188	1069	2051	10691	14770	2192	26412	15846	14552	9622	6981	10245	2653	5683	13202	33749	13216	7086	13081	2356
'39	7068	1645	5001	33612	4670	4751	791	1656	8364	11599	1769	22024	11378	13128	7897	6198	8566	2270	4220	10421	24572	11069	5627	10919	1896
'38	4270	1288	3433	27797	3701	4216	663	1021	6316	7109	1419	16619	9882	10948	6949	4383	5696	2054	3524	8779	13862	10804	3363	8503	1588
'37	9541	2667	6778	47452	7611	10136	1678	1612	12307	14653	3282	39261	25719	19142	14307	11925	8670	4339	8934	19959	47206	23083	6650	18610	3122
'36	9618	2840	7839	56756	7675	9058	1335	1457	11332	16690	3227	31907	20843	17354	12799	10614	8583	4039	7105	17451	38309	18188	6636	16353	3439
'35	5334	2132	5374	50601	5782	6958	973	944	6789	9308	2424	23782	17558	16080	11163	8488	4566	3100	5147	11818	21923	17024	4191	14240	2846
'34	3799	1373	3780	27854	4023	4021	533	377	4699	7987	1522	10339	7235	7179	6910	5318	3369	2057	2826	6928	11168	7785	3067	8573	1396
'33	919	507	995	15294	1293	1324	160	117	1548	1639	578	3628	2701	2756	2405	1737	870	713	851	1952	3435	3637	759	3060	576
'32	875	470	1034	12526	1106	1179	182	96	1564	1379	395	3682	2477	2311	2261	1823	1140	643	956	1702	4171	2929	692	2840	427
'31	4801	1403	4392	29796	3295	4270	460	193	5881	9781	1240	13217	7801	9045	6349	6687	3865	2403	2416	4618	9294	11926	2088	8732	1151
'30	4867	1799	6502	46517	4579	3285	502	181	6030	7765	2166	169333	11767	15526	10155	8821	3557	1802	2637	2687	12093	15734	3356	11880	1683
Before '30	8695	2689	9063	47421	6666	2358	482	138	6232	9796	3244	19698	16310	22661	19873	9822	5530	2090	2532	1993	14648	22465	6892	20354	3039
Unid.*	140	67	162	1352	89	75	32	864	724	928	53	738	197	162	357	129	445	14	173	98	31110	161	279	392	34
Total	84395	24075	72546	497841	64196	86246	10685	15392	102614	140187	26920	276059	174030	174368	128432	95480	85116	32348	56728	121945	333502	182030	64869	160803	27579
GRAHAM-GP.																									
6 Mo. '46										1												1			
'45-'42	1			9	1				1	2		6	2	3		1		2		4	13		2	14	
'41	6	6	2	217	16	8		1	32	5	6	125	44	5	2	1	3	10	4	30	58	7	2	29	3
'40	9	3	1	317	14	17	1	2	45	2	4	97	42	18	15	6	4	16	19	76	65	16	2	36	6
'39	17	22	8	525	37	113	3	16	98	10	10	246	125	57	35	19	11	50	37	191	194	52	4	90	9
'38	17	24	2	612	27	53	2	10	94	16	20	196	89	62	34	20	12	36	27	119	156	63	2	111	3
'37	33	60	45	1343	134	529	13	34	238	64	74	703	228	215	115	97	32	101	143	579	579	281	12	190	99
'36	37	64	10	1608	111	287	7	6	153	19	55	337	229	170	57	91	14	68	77	324	381	243	11	201	38
'35	18	49	18	1147	75	209	6	13	127	17	46	353	181	125	70	66	13	73	67	174	225	185	6	136	99
'34	9	10	8	680	32	56	2	6	50	21	17	145	89	28	32	26	8	28	24	102	89	69	3	76	11
'33	1	5	4	359	39	50	2	7	33	5	10	82	59	20	25	11	5	20	22	55	56	63	4	50	6
'32	7	4	2	297	11	36	1	5	15	8	6	67	28	16	12	10	4	15	16	39	50	81	4	55	3
'31	3	10	8	408	37	42	1	7	21	7	9	99	48	50	19	15	3	14	17	40	51	64	4	52	5
'30	3	10	11	460	52	38	1	6	23	4	9	84	35	64	30	10	5	12	19	34	75	101	3	59	3
Before '30	14	29	8	991	62	84	2	5	33	9	17	268	127	112	93	30	9	31	27	53	119	201	5	94	43
Unid.*	1		3	12	1	3		1	8	4	1	15	5	4	1		2		3	4	384			10	1
Total	176	296	130	8985	649	1525	41	119	971	194	284	2823	1401	949	540	403	125	476	493	1824	2495	1427	64	1203	239
HUDSON																									
6 Mo. '46	351	45	126	1695	128	443	39	169	406	403	135	1423	614	596	321	331	268	209	278	390	2502	558	108	437	113
'45-'42	670	178	198	2574	374	449	48	216	809	689	269	2766	1331	837	832	392	367	373	339	1140	2766	615	258	880	240
'41	1083	428	404	9231	698	1475	150	517	1979	1057	434	6561	3492	1715	1290	701	663	677	1057	2806	7718	1298	280	1630	339
'40	916	359	355	8004	706	1260	138	451	1805	910	418	6538	3513	1861	1118	757	777	564	968	2394	5834	1300	343	1522	353
'39	513	239	167	4803	572	677	78	272	1146	650	229	3139	1541	1018	855	440	509	416	549	1570	2884	855	178	870	188
'38	383	165	121	3373	599	544	69	143	895	496	268	2131	1257	857	889	409	371	393	487	1295	1905	872	130	744	174
'37	1037	400	284	5957	1309	1471	173	272	1733	1064	608	5420	3241	1814	2006	992	670	759	1210	2957	6681	1914	317	1601	484
'36	644	315	300	5627	1142	1174	115	201	1265	589	491	4214	3279	1804	1548	838	360	652	814	2786	4792	1908	242	1338	682
'35	275	194	119	3800	550	609	49	88	479	285	256	1775	1814	1050	1008	379	148	329	344	1195	1878	1109	132	654	410
'34	132	122	83	2011	379	456	35	57	322	186	133	924	693	607	543	224	69	373	245	1130	993	527	53	383	147
'33	43	24	22	813	138	249	14	16	125	80	26	284	263	202	248	82	32	158	96	470	466	163	14	178	92
'32	20	23	14	588	101	130	9	10	92	39	13	166	139	106	105	72	22	108	59	274	214	113	8	112	9
'31	33	20	14	608	119	210	13	10	122	23	19	240	236	233	146	99	15	244	91	324	355	228	8	150	23
'30	17	21	24	729	129	173	9	8	100	18	38	270	216	257	139	94	16	136	66	158	238	277	8	139	30
Before '30	50	60	41	2401	289	222	22	9	153	45	78	631	683	577	439	199	31	238	154	244	779	534	37	361	101
Unid.*	16	1	11	624	11	14		92	81	42	16	100	31	11	27	14	20	2	13	20	3329	3	9	31	6
Total	6183	2594	2283	52838	7244	9556	961	2531	11512	6576	3431	36582	22343	13545	11514	6023	4338	5631	6770	19153	43334	12274	2125	10830	3360
HUPMOBILE																									
6 Mo. '46																									
'45-'42	1			2							1	6	5	1	1	1					3			2	
'41	3	1		21	5	2		5	20	7		12	20	8	2	7	4	1	2	9	46		1	7	
'40		1		35	1	2			7	1		1	2	1	1		1		1	4	14	1		4	
'39	1	6	2	97	9	18		10	13	1		126	30	11	9	6	8	2	4	32	111	62	2	7	3
'38	1	5	2	108	17	42		15	13	10		116	26	25	6	6	12	7	7	66	86	52	1	10	1
'37	2	7		40		1			3	1		28	16	4	1	6		4	3	5	9	2	1	2	
'36	2	5	3	118	19	79	1	7	12	7	14	69	21	49	14	17	6	5	16	58	35	56	2	14	12
'35	5	18	10	481	45	110	5	19	30	25	20	181	104	99	47	40	10	19	40	122	82	135	4	65	36
'34	6	7	6	260	14	83	1	9	31	22	5	96	44	32	18	30	8	15	18	103	45	74	2	32	7
'33	3	2	1	194	13	52	1	6	12	15	2	61	24	12	9	20	5	11	22	81	23	76		30	2
'32	7	6	8	185	19	28	1	9	16	14	1	90	26	21	16	12	11	12	23	67	68	61	2	64	2
'31	10	5	5	297	26	63	2	9	23	27		133	61	51	21	48	10	28	28	98	52	155	5	69	9
'30	5	12	3	274	39	56	1	8	23	9	6	127	35	81	28	21	7	9	22	45	43	70	7	60	9
Before '30	18	17	15	1242	74	155	8	19	73	21	27	349	169	221	117	67	15	40	80	115	161	279	23	166	27
Unid.*			4	7		2	1	7	2	2	1	9	2	1	2	2		1	14	3	162		1	1	
Total	64	92	59	3361	281	693	21	123	278	162	77	1404	585	617	292	283	97	154	280	808	940	1023	51	533	95
LA SALLE																									
6 Mo. '46																									
'45-'42																									
'41																1									
'40	93	92	52	2215	190	633	82	214	614	285	25	1799	497	149	126	165	155	140	371	1002	989	307	46	457	43
'39	109	85	66	2934	212	565	74	193	588	292	25	1475	363	179	123	146	175	146	319	935	853	285	59	397	38
'38	65	75	48	1957	73	391	45	113	367	157	16	852	326	113	99	99	103	80	195	670	509	153	43	284	22
'37	168	94	90	3925	257	822	98	172	693	260	41	1712	632	223	207	238	179	162	440	1412	1130	331	87	562	43
'36	49	29	38	1816	104	273	35	59	255	93	15	639	249	99	80	87	61	80	153	508	391	122	25	241	17
'35	10	28	27	1378	49	162	20	27	132	71	13	332	154	75	65	74	30	57	88	268	229	95	16	144	13
'34	11	8	10	532	35	60	9	13	73	19	5	127	61	28	37	32	10	22	32	138	87	25	3	64	4
'33	2	4	4	248	15	68	6	3	20	5	1	61	10	12	4	11	5	7	28	70	15	21	4	21	2
'32	5	6	5	207	13	39	4	5	19	3	2	49	15	3	5	10	4	2	19	60	23	12		15	2
'31	7	6		219	24	74	6	10	27	7		65	11	17	5	8	5	6	26	87	29	17	1	16	6
'30	5	4	3	319	18	49	4		19	2	2	82	17	13	4	7		6	18	60	25	25	2	21	6
Before '30	6	9	4	650	22	77	6	7	21	7	2	89	46	26	11	10	5	17	25	67	41	32	5	41	6
Unid.*	6	24	3	28	7	10	2	18	59	23	2	78	26	2	4	2	19	7	6	122	293	4	3	27	2
Total	536	464	350	16428	1019	3223	391	834	2887	1224	149	7340	2407	939	770	890	751	732	1720	5397	4614	1429	294	2290	199

‡—Includes Terraplane and Essex. **Unid.***—Unidentified as to year of manufacture. Data from R. L. Polk & Co.

AND YEAR OF MANUFACTURE—*continued*

Model	Neb.	Nev.	N. H.	N. J.	N. M.	N. Y.	N. C.	N. D.	Ohio	Okla.	Ore.	Pa.†	R. I.	S. C.	S. D.	Tenn.	Tex.	Utah	Vt.	Va.	Wash.	W.Va.	Wis.	Wyo.	Totals
DODGE 6 Mo. '46	116	84	201	2400	191	2336	763	5	2916	515	618	2456	148	344	129	740	2171	228	141	686	651	129	1135	55	39180
'45-'42	509	77	108	2252	209	5245	1059	277	4431	679	967	4512	234	631	240	1208	4077	299	142	614	1456	585	1104	142	61628
'41	1419	325	599	8892	699	22156	3368	690	16669	2532	3294	17227	1300	1771	731	3522	12049	936	471	4303	5212	1983	4531	479	230449
'40	1381	254	592	7593	544	17429	2808	545	13849	2180	2275	13711	1011	1312	651	2478	9411	926	430	3439	3821	1923	4068	359	188460
'39	1322	228	669	7422	478	18001	2569	463	12192	2013	1998	12235	1071	1364	613	2472	8544	752	411	2815	3482	1412	3916	399	175155
'38	779	121	380	5102	322	11369	1433	277	6384	1313	1123	7503	580	675	365	1626	4173	469	318	1744	1902	1014	2388	203	100433
'37	1714	327	926	12176	665	26694	2985	640	18825	2558	3343	21724	1697	1601	718	3164	8860	1236	713	3199	4907	2678	7245	512	254804
'36	1784	264	750	9721	514	21742	2334	524	16676	2323	3296	17449	1430	1130	711	2935	6084	1315	582	3005	4634	2326	6227	500	216908
'35	1086	175	451	4446	264	10913	1294	381	7788	1546	1599	7906	809	653	423	1361	3121	747	282	1739	2781	1222	3549	292	113037
'34	432	77	240	2156	136	5441	643	151	3649	674	879	4067	366	306	165	649	1494	352	185	633	1543	697	1306	109	50192
'33	303	34	162	1647	83	4854	430	94	3253	508	690	2956	207	214	93	327	920	204	111	486	1285	484	1264	76	39437
'32	70	11	48	367	24	1161	164	28	532	151	161	810	65	48	41	166	259	35	55	128	229	127	231	19	10125
'31	188	16	79	337	38	1059	171	62	648	183	242	813	69	62	75	220	493	73	72	215	344	128	524	47	13598
'30	226	22	45	293	29	820	238	68	663	169	312	794	59	46	97	155	421	56	59	147	373	131	418	30	11867
Before '30	1356	102	137	661	175	2106	510	472	2316	777	1228	1819	113	131	503	424	1595	220	169	477	1574	365	1403	148	43038
Unid.*	24	6	5	32	4	176	29	5	123	32	17	361	3	24	709	112	78	2	2	9	6	17	42	1	11231
Total	12709	2123	5392	65497	4375	151502	20798	4682	110914	18153	22042	116343	9162	10312	6264	21559	63750	7850	4143	23639	34200	15221	39351	3371	1559542
FORD 6 Mo. '46	929	128	266	2964	519	5166	2825	194	8041	1938	1098	5867	312	1665	599	2571	9606	503	219	2469	1523	503	3224	218	114638
'45-'42	1979	166	246	2826	559	6152	4149	1066	8077	2791	1260	5884	384	2724	736	3098	13546	543	229	1789	1796	1041	2889	417	136196
'41	9508	713	1671	13952	2425	31287	19965	5372	39779	13666	6755	31680	2534	11166	3736	12538	54964	2917	1165	13904	10134	5550	14609	1785	659555
'40	8261	567	1726	11185	1958	25979	15431	3960	29132	12279	5392	25895	2352	9244	3303	9311	42241	2231	1148	11656	7601	4481	12586	1310	524845
'39	7592	449	1567	8610	1686	20601	12764	3079	23500	10611	4152	18797	2027	7701	3054	7878	32777	2038	975	9802	5967	3689	10054	1160	421643
'38	6284	368	1008	7535	1159	18727	9749	2894	15616	8402	3367	15665	1680	5275	2648	4763	32102	1591	842	6972	4875	2682	9164	922	332477
'37	11158	612	2542	17882	2149	47206	17699	4885	55193	13909	8482	41477	3538	10344	5573	11586	39491	3575	1882	12486	14192	7851	22347	1768	725371
'36	10599	709	2518	13853	2193	42609	18045	3993	43948	13915	9232	33901	3095	12635	4741	11019	38985	3816	1816	10665	14992	7347	18339	1780	664192
'35	8808	645	2025	10583	1563	32327	13222	4199	27180	11737	5971	23383	2126	7705	4088	7553	26480	2669	1509	9650	10147	4982	16406	1251	494737
'34	4732	331	1384	5325	1045	16653	8086	1921	14296	6667	3600	13227	1098	6190	1804	4962	17901	1631	907	4716	5943	3041	7450	727	277743
'33	1757	131	485	1876	383	6499	2261	893	5129	2317	1630	3919	368	1661	724	1271	5718	556	318	1720	2530	1081	2952	284	99915
'32	1511	127	439	1938	371	5557	1954	730	5132	1671	1325	4424	337	1020	646	1278	4418	389	384	1517	2065	1128	2650	235	90106
'31	5893	383	1486	5725	1119	15579	11991	2551	13726	5321	4255	10987	1456	10911	2162	6521	15716	1245	1132	5329	5942	3645	7458	691	286329
'30	9015	537	959	6026	1569	14996	12350	4080	18227	8926	6389	11778	874	8958	4124	7044	18404	1879	872	5952	10214	4447	12097	910	373341
Before '30	15820	595	1086	3612	2282	10890	13203	8997	23793	13646	9618	14070	522	7997	7051	8093	35999	2314	950	6843	12824	4548	16397	1218	487039
Unid.*	117	6	6	64	60	484	190	9	310	228	58	359	17	133	4570	486	541	19	10	75	67	40	171	16	46807
Total	103963	6467	19414	113956	21040	300712	163884	48823	331079	128024	72582	261313	22720	105329	49559	99972	388889	27916	14358	105525	109722	56036	158773	14692	5744934
GRAHAM-GP. 6 Mo. '46																									
'45-'42						8	2	2	5	1	1	3						1	1		2		1		88
'41	9	5		28	2	59	6	3	97	4	41	51	3	2	1	6	64	4		11	52	11	18	3	1102
'40	10	4	1	32	4	68	2	6	151	4	32	122	25	2	3	8	20	7		20	32	19	33	6	1435
'39	25	6	7	122	1	375	9	5	429	16	109	343	18	3	10	20	64	23	5	43	95	52	121	5	3884
'38	18	7	8	112	5	244	7	8	355	13	123	206	11	6	12	23	75	42	5	34	105	40	93	10	3369
'37	41	33	75	506	17	1010	52	12	1411	51	430	1181	78	22	20	60	175	138	28	87	480	191	377	23	12390
'36	53	17	43	234	6	710	31	25	786	63	378	687	45	11	16	58	130	144	21	96	367	125	263	28	9005
'35	40	14	41	236	3	656	48	19	695	52	385	588	32	8	12	62	119	92	23	83	304	61	186	17	7225
'34	29	6	30	66	3	299	14	3	283	29	140	236	17	9	2	32	36	39	10	58	142	16	81	3	3204
'33	18	3	15	87	1	288	10	1	166	15	73	197	9	2	2	10	23	30	7	23	80	17	54	2	2126
'32	6	2	12	43	1	173	7	3	88	8	44	172	6	2	9	16	18	13	10	18	46	21	47	2	1559
'31	17	6	9	70	4	205	6	5	107	8	77	161	11	2	4	16	36	16	11	21	63	24	82	7	2002
'30	26	4	10	57		201	6	9	143	17	105	179	5	4	12	11	38	14	10	13	79	37	86	5	2222
Before '30	76	10	18	110	10	263	14	32	284	31	122	244	19	7	40	20	59	40	20	34	210	35	25	11	4390
Unid.*	1		2	5	1	7			6	4	2	2			14	2	9	1			2		6		529
Total	369	117	271	1708	58	4568	214	133	5006	316	2062	4372	279	80	157	344	886	604	151	541	2059	649	1653	122	54520
HUDSON 6 Mo. '46	84	40	90	771	78	1273	476	21	2190	258	313	1496	103	255	94	367	1068	136	56	395	452	92	686	35	22917
'45-'42	343	44	76	879	89	2165	824	56	2336	393	443	1856	94	566	60	466	1611	310	54	375	803	340	902	129	34624
'41	463	102	307	2788	188	5250	1361	135	6275	621	1194	5732	428	1045	137	818	2661	453	227	1174	2487	847	2433	235	85044
'40	444	72	341	2387	208	5160	1319	175	6507	693	839	5534	395	866	158	817	2551	388	221	1083	1667	846	2182	230	78227
'39	280	50	267	1358	99	3501	902	98	2956	571	485	2984	260	553	96	401	1437	283	150	717	978	371	1158	100	44411
'38	324	42	212	1305	113	3201	593	135	2478	455	636	2775	158	372	108	398	1476	225	134	451	1082	370	1003	120	37136
'37	593	98	387	2844	245	7048	1159	274	8075	894	1479	7237	410	767	205	922	2779	582	339	993	2774	907	2211	235	87841
'36	636	95	349	1990	211	5663	764	238	6207	725	1518	4789	450	434	251	660	2059	554	299	754	2814	759	2282	229	71850
'35	332	28	218	862	69	2913	413	110	2846	399	772	1940	196	190	187	364	845	227	185	468	1471	311	1249	145	35689
'34	287	23	193	629	39	2075	414	67	1485	219	388	1350	131	143	105	173	429	161	136	285	731	219	709	75	21293
'33	85	5	106	277	17	1023	136	11	610	34	157	552	61	42	14	72	174	41	75	100	288	101	264	17	8520
'32	30	3	46	197	6	699	54	11	327	20	75	302	35	12	6	40	69	30	58	48	115	53	194	18	4993
'31	64	4	97	276	6	921	85	19	456	24	111	473	47	23	23	49	92	39	108	71	144	59	263	21	7058
'30	43	12	37	249	5	746	72	24	495	47	172	377	18	17	30	43	77	45	65	51	224	68	275	10	6510
Before '30	206	24	98	461	30	1147	205	96	1260	108	313	891	61	38	109	115	240	101	135	112	531	111	873	30	15573
Unid.*	5	3	2	13	1	49	10	2	50	9	9	54	5	9	263	31	31	1	1	3	2	4	39	1	5121
Total	4219	645	2826	17286	1404	42834	8787	1472	44553	5470	8904	38342	2852	5332	1846	5736	17599	3576	2243	7080	16563	5456	16721	1630	566887
HUPMOBILE 6 Mo. '46												1													1
'45-'42						4	1					1		1		1	2					2			35
'41	4		1	4	3	14	4		44	1	9	6		1		6	9	1		6	8	1	4		309
'40			1	1		11			5		2	4	1	1		3	6	3		3	3		76		196
'39	3	2	3	19	1	120	4	3	45	2	28	16	2	1		12	13	10	2	12	17	6	16	1	908
'38	1		5	43		118	3		43	8	46	38	9		1	22	31	9	2	11	50	5	22	3	1104
'37	3		1	8	1	21	2		23	1	5	5			1	2	4	1		3	17	2	3	8	246
'36	32	1	7	68	2	117	4	1	100	17	23	115	20	4	6	19	47	4	2	14	65	4	24	15	1352
'35	50	2	15	120	6	314	28	7	194	17	56	264	28	11	11	29	70	16	7	26	101	37	131	8	3288
'34	9	1	9	59	5	229	14	4	173	31	26	136	26	12	8	18	35	9	7	30	26	16	87	3	1941
'33	9		10	72	2	245	6	2	92	4	13	143	18	8	3	8	11	8	8	18	15	8	22	1	1403
'32	7		9	76		271	5	5	107	6	10	174	18	10	5	17	27	5	9	33	28	7	50	2	1650
'31	23	2	16	102	1	315	18	5	147	3	28	191	20	11	10	29	34	6	29	47	80	15	58	4	2428
'30	31	5	16	72	2	221	5	5	135	13	47	162	16	7	13	15	29	11	13	30	93	8	46	4	1999
Before '30	103	3	30	265	10	628	21	31	454	46	169	525	43	15	55	31	115	19	40	97	249	31	189	9	6676
Unid.*			1			14	1		5			159	1		19	6	2					1			434
Total	275	16	124	909	33	2642	116	63	1567	149	462	1940	202	82	132	218	435	102	119	330	752	141	730	58	23970
LA SALLE 6 Mo. '46																									
'45-'42																									
'41												1													2
'40	50	46	64	1280	41	2952	230	16	1378	158	161	1619	136	84	36	203	723	76	41	213	286	140	343	34	21051
'39	51	33	84	1155	48	2703	255	17	1147	206	251	1369	159	91	23	204	656	58	52	238	284	119	287	27	20153
'38	44	30	41	770	29	1771	156	12	791	142	116	783	110	62	21	95	462	55	38	154	202	76	189	23	13027
'37	79	46	77	1576	47	3782	255	36	1733	199	266	1958	192	113	36	253	683	81	105	243	448	155	459	24	26804
'36	27	16	45	617	18	1285	97	14	599	100	136	658	82	28	18	81	297	40	37	105	197	56	164	12	10245
'35	29	12	26	319	13	730	51	8	366	58	80	418	39	15	8	41	143	26	21	56	119	38	131	6	6312
'34	12	5	10	164	4	371	23	5	176	29	29	122	8	11	10	11	60	19	15	31	71	25	63	4	2723
'33		2	10	100	3	228	6		67	6	13	122	18	3	1	4	8	4	9	6	9	3	27		1296
'32	3	1	4	70	5	158	4	1	41	7	13	104	17	3		6	14	1	2	5	19	2	15		1022
'31		3	11	109	6	199	11	1	45	6	7	104	12	4	1	5	16	8	9	2	20	11	10		1274
'30	6	2	1	76	3	142	3	3	35	8	15	89	9		3	4	17	2	12	8	20	3	10	1	1163
Before '30	16	8	13	94	3	232	14	4	50	12	38	119	13	4	2	9	19	12	13	12	32	5	17	1	1974
Unid.*	5			30	7	99	7		33	5	3	12	1	7	15	20	66	1	1	4	4	4	6	2	1109
Total	322	204	386	6360	227	14632	1112	117	6463	936	1128	7478	796	425	174	936	3164	383	355	1077	1711	637	1721	134	108155

‡—Includes Terraplane and Essex. **Unid.***—Unidentified as to year of manufacture. Data from R. L. Polk & Co.

CARS IN USE BY MAKES, STATES

Model	Ala.	Ariz.	Ark.	Calif.	Colo.	Conn.	Del.	D. C.	Fla.	Ga.	Idaho	Ill.	Ind.	Iowa	Kan.	Ky.	La.	Me.	Md.	Mass.	Mich.	Minn.	Miss.	Mo.	Mont.
LINCOLN																									
6 Mo. '46	15	6	16	207	15	60	5	17	65	33	8	112	36	39	23	27	66	10	20	31	242	36	24	36	10
'45-'42	59	25	37	612	50	92	12	41	238	114	21	469	110	58	71	44	173	25	61	190	423	100	74	124	21
'41	170	112	117	2702	162	449	45	200	767	316	57	1324	421	237	323	165	374	90	223	739	918	299	171	962	82
'40	134	127	97	3197	275	396	39	155	801	257	80	1268	414	237	275	173	341	77	201	668	936	320	129	542	74
'39	156	120	102	3132	247	360	35	150	699	282	69	1006	405	195	229	199	335	85	175	598	894	280	111	382	74
'38	115	100	78	2823	192	247	26	95	492	200	67	776	336	170	183	132	183	86	138	500	735	271	73	325	61
'37	173	166	134	3429	305	426	44	110	679	324	89	1136	583	315	285	228	216	158	224	827	1157	480	119	481	136
'36	46	47	52	1907	146	174	18	46	266	80	50	581	274	156	161	81	86	36	98	371	395	201	33	156	74
'35	6	5	4	216	7	34	2	8	22	12	3	64	28	6	18	9	3	9	11	60	25	17	3	20	4
'34	3	6	3	145	12	19	2	5	21	6	2	59	16	7	11	17	9	7	11	51	29	17	2	16	4
'33	1	3	1	122	6	19	1	3	5	4	1	30	14	5	2	3	2	1	4	20	13	8	1	10	3
'32	6	6	4	160	5	21	1	3	16	3	.....	42	8	5	5	6	8	4	9	40	18	22	.....	18	2
'31	.....	3	2	111	4	13	1	3	17	2	.....	21	6	2	1	8	4	8	4	25	9	13	3	16	2
'30	2	4	1	110	6	15	1	1	12	4	1	26	9	15	5	7	3	3	2	19	18	9	2	3	2
Before '30	5	4	5	269	14	13	1	4	14	4	4	42	8	20	7	6	12	8	8	27	16	16	6	17	4
Unid.*	3	4	6	51	4	2	.....	24	24	14	1	35	3	2	5	4	5	2	2	2	348	2	5	7	1
Total	894	738	659	19093	1450	2340	233	865	4138	1657	453	6979	2671	1469	1604	1109	1820	609	1191	4168	6176	2091	756	2751	527
MERCURY																									
6 Mo. '46	165	65	84	1260	130	278	29	79	295	317	72	716	233	365	143	177	350	65	134	180	2023	505	112	304	122
'45-'42	259	89	187	1221	257	248	33	90	592	658	136	1372	443	389	300	185	554	95	155	394	1577	469	282	496	128
'41	1172	467	588	9326	1136	1165	159	375	2255	1976	516	4960	1962	1479	1319	786	1688	289	736	1671	6542	1944	855	2253	468
'40	793	394	460	9262	1119	1200	137	322	1768	1463	379	4484	1869	138	1176	713	1235	388	627	1649	5620	1825	562	1840	467
'39	607	241	341	7142	813	1002	107	308	1297	1033	248	3350	1170	1139	894	468	787	320	497	1132	3957	1321	375	1247	296
'38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'36	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'32	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Before '30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Unid.*	47	9	6	780	30	15	4	32	129	63	40	77	155	96	21	94	50	8	17	27	1757	3	41	60	4
Total	3043	1265	1668	28991	3485	3908	469	1206	6336	5510	1391	14959	5832	4857	3853	2423	4664	1165	2166	5053	21476	6067	2227	8202	1396
Nash-Ajax-Laf																									
6 Mo. '46	348	96	224	1808	131	669	41	185	505	500	109	1720	504	393	285	359	456	223	368	442	2260	764	239	590	159
'45-'42	284	87	178	1795	227	434	32	90	624	480	93	3159	795	447	507	234	306	202	284	794	1691	752	241	557	182
'41	415	302	380	6523	719	1484	109	263	1287	759	397	7604	2242	1212	1180	645	748	487	969	2240	4781	2046	364	1857	491
'40	411	249	259	4633	605	1065	81	186	1077	564	277	5651	1770	996	728	540	491	358	726	1661	2448	1575	258	1903	354
'39	308	226	198	4163	448	719	62	131	794	441	187	4270	1216	806	542	397	290	341	537	1672	1667	1154	174	1625	305
'38	191	132	141	2810	336	650	47	116	510	294	125	2746	668	676	475	296	228	222	422	1294	1037	1159	125	957	197
'37	323	259	194	5086	898	1404	107	86	745	463	342	6820	1750	1283	865	593	458	525	966	2989	2652	1804	230	1325	456
'36	191	201	139	3814	567	895	50	78	473	289	215	3109	807	987	611	294	284	303	450	1629	1014	1064	133	829	403
'35	42	78	29	3293	196	292	15	20	137	59	52	1003	461	224	137	135	110	90	134	510	295	282	64	413	137
'34	35	40	39	1275	190	364	19	20	118	59	55	630	223	238	192	111	108	164	166	733	224	269	52	290	108
'33	7	9	11	464	38	105	3	31	29	11	6	159	57	42	33	18	32	41	32	140	55	60	6	59	9
'32	13	22	18	576	65	181	11	20	68	27	16	263	66	126	67	45	43	99	98	254	112	156	15	140	28
'31	15	26	22	726	78	123	6	8	55	18	19	235	95	130	80	43	33	96	53	179	81	143	17	140	26
'30	11	28	17	711	86	144	6	3	36	15	29	255	92	180	104	39	27	73	52	144	101	174	19	140	36
Before '30	34	84	41	2639	282	255	19	16	86	38	126	843	374	636	462	119	62	186	164	232	337	609	56	433	122
Unid.*	.....	2	9	525	10	5	1	49	33	23	9	113	19	17	10	8	17	1	4	13	1396	3	8	37	2
Total	2628	1841	1899	40841	4876	8779	609	1302	6577	4040	2057	38580	11139	8393	6278	3876	3693	3411	5425	14926	20151	12014	2001	11295	2877
OLDSMOBILE																									
6 Mo. '46	152	17	74	1005	92	373	42	114	189	286	48	551	216	246	150	324	272	111	188	400	1646	255	60	1301	92
'45-'42	525	187	362	3464	463	1128	194	422	1264	954	219	4739	1794	819	919	901	913	501	867	2907	4095	1028	406	1458	186
'41	1839	920	1342	23199	2099	5083	858	1931	5059	3348	850	18292	7632	3341	3603	2334	3007	1601	3826	12639	15190	4079	1345	6567	948
'40	1268	726	858	20381	1490	3689	650	1127	3336	2260	653	12880	5748	2540	2586	1953	1887	1289	2885	8969	8976	2928	971	4936	719
'39	945	571	668	13918	1188	2733	436	601	2082	1569	456	8036	3190	1962	1879	1422	1235	888	1945	6370	5141	2091	580	3356	494
'38	609	387	399	10286	847	1979	301	309	1535	1032	307	5475	2614	1307	1274	1075	890	691	1340	4080	3058	1593	368	2273	315
'37	1113	766	718	19966	1888	3826	619	636	2802	1787	617	12082	6022	2641	2486	1914	1251	1251	2754	7741	8726	3105	597	4294	576
'36	860	627	666	18366	1657	3394	568	575	2369	1415	564	10819	5139	2674	2128	1841	1111	1279	2528	7550	7499	2946	448	3965	540
'35	468	396	414	12814	1001	1801	318	244	1149	727	355	5855	3510	1841	1595	1150	486	689	1418	3754	3625	2127	235	2456	340
'34	178	193	201	4328	511	889	110	85	446	285	158	2277	1223	738	664	471	191	311	488	1569	1525	857	69	1163	146
'33	33	44	52	1115	96	317	42	20	116	59	40	664	318	251	176	124	35	104	188	538	407	295	31	330	74
'32	24	28	18	582	51	129	17	16	59	33	21	285	170	102	81	52	36	81	76	236	210	188	14	134	19
'31	27	46	51	908	129	209	30	25	102	65	45	628	444	305	171	109	32	138	132	312	594	492	26	294	37
'30	27	23	26	644	87	135	17	10	77	19	34	365	238	230	115	49	21	86	76	116	296	210	13	170	25
Before '30	32	72	22	1419	239	118	22	14	68	33	81	553	470	395	335	113	27	82	94	104	499	464	30	441	76
Unid.*	17	6	13	239	12	27	12	280	117	78	6	212	42	16	44	23	55	6	55	52	4214	13	17	59	13
Total	8117	5009	5884	132634	11850	25830	4236	6389	20770	13930	4454	83713	38768	19408	18206	13855	11449	9108	18860	57337	65701	22669	5210	33187	4603
PACKARD																									
6 Mo. '46	76	16	35	594	25	222	15	64	127	150	21	274	77	132	30	100	132	63	151	196	809	142	42	125	38
'45-'42	260	154	127	2248	207	666	59	214	700	521	82	2254	446	289	237	266	370	141	567	1215	1461	399	139	569	57
'41	605	337	242	7840	529	1881	150	623	1839	931	163	5007	1261	566	525	629	666	365	1437	3011	3112	907	259	1583	149
'40	648	416	329	8910	713	2732	201	619	2114	1127	230	7319	1873	767	684	770	804	474	1923	3844	3900	1302	335	1995	283
'39	285	224	139	6841	314	1248	89	295	987	551	80	3174	701	324	299	357	392	252	860	1997	1275	627	145	1003	85
'38	279	230	149	5976	371	1436	99	275	1124	541	76	3438	817	479	413	422	362	265	947	2265	1470	825	115	1076	138
'37	674	415	328	9084	858	3505	230	572	2166	1221	207	6778	1883	983	829	1107	602	707	2212	5230	4475	1559	230	2168	264
'36	217	210	138	6426	394	1634	98	264	867	440	100	2966	1091	441	355	485	256	343	940	2472	1422	805	108	985	127
'35	95	68	64	3082	178	611	40	80	326	157	37	1105	362	216	179	308	85	135	386	1011	449	398	32	415	67
'34	22	19	9	508	33	217	11	42	98	27	5	270	68	36	23	41	22	37	108	279	113	70	9	66	8
'33	7	6	4	530	22	110	5	14	47	30	3	127	55	19	19	18	8	25	49	152	54	43	8	59	2
'32	18	26	8	566	55	192	11	44	76	39	7	216	49	39	25	51	16	39	108	275	102	102	6	87	9
'31	8	15	3	501	35	86	7	15	57	22	1	102	47	26	9	16	8	21	60	126	50	47	8	36	2
'30	9	17	6	628	35	129	9	12	84	19	9	151	41	30	16	20	16	32	78	148	90	99	4	49	6
Before '20	19	45	12	1558	78	229	13	24	117	40	17	318	80	68	37	63	33	65	119	234	130	139	20	89	11
Unid.*	5	3	13	125	4	21	2	118	60	31	5	102	11	3	8	13	20	2	20	25	1929	4	5	14	3
Total	3227	2201	1606	55417	3851	14919	1039	3275	10789	5847	1043	33601	8862	4418	3688	4686	3792	2966	9974	22480	20641	7468	1505	10319	1206
PLYMOUTH																									
6 Mo. '46	1214	88	621	3488	336	1179	137	786	1089	1367	191	3284	1311	1577	718	1218	1197	415	1102	1151	5756	2041	624	1649	356
'45-'42	1480	483	1030	5183	844	2022	269	1306	2716	2607	418	7562	4214	2237	1718	1679	1952	673	2147	4330	5972	3072	1000	2793	433
'41	5426	2042	2766	37754	3687	8899	1124	4365	10550	8168	1533	32618	17684	8172	6456	5913	6895	2575	8975	19099	27103	9721	3145	12828	1631
'40	4083	1768	2004	36504	2866	7436	848	2690	7655	5727	1430	26640	14047	6643	5044	4658	4698	2029	6775	14233	17003	8761	2458	11149	1358
'39	4041	1454	1987	28943	3022	7582	820	2209	7156	5084	1246	24200	10124	7360	4983	4664	4412	2013	6553	14584	14797	8432	2208	10512	1212
'38	2236	1027	1386	24350	1967	4710	544	1112	4261	2866	823	14801	8550	4938	3778	3440	2920	1569	4350	8868	6635	6507	1321	6983	820
'37	4441	2178	2860	37319	5028	9323	1034	1652	7290	5846	1932	29506	16150	8485	7551	7116	4616	2723	8266	15286	21907	11227	2684	12547	1727
'36	3174	1829	2316	37438	4786	8217	929	1174	5920	4833	1924	26517	15795	8877	7115	6206	3548	2260	7434	13512	15146	10798	2244	10757	1901
'35	1983	1080	1542	27851	2646	4608	455	542	3114	2818	1275	13885	10320	6309	4767	4075	1779	1398	3635	6573	7312	7207	1234	6689	1430
'34	1555	857	1244	17309	1952	3341	346	248	2482	2216	810	8319	6421	3416	3337	3357	1403	1110	2754	4637	4586	3598	928	5315	763
'33	883	414	682	13945	1532	2722	227	149	1698	1335	491	5812	4091	2250	2175	2623	688	882	1820	3224	2763	2824	434	4546	470
'32	292	204	353	5111	656	1155	111	49	917	401	196	2311	1349	982	768	846	218	509	879	1178	1303	1787	109	1767	197
'31	123	71	86	3014	228	129	13	13	196	125	92	732	882	433	312	380	101	132	111	195	407	594	49	732	79
'30	70	41	117	859	191	75	13	7	140	63	68	624	398	503	292	271	69	134	110	101	421	708	58	499	71
Before '30	79	47	39	880	152	83	8	1	72	91	91	639	365	460	359	157	92	90	56	56	357	586	75	427	127
Unid.*	57	22	41	867	35	49	13	623	266	302	31	469	107	62	128	60	190	9	109	75	11837	37	79	157	36
Total	31137	13605	19074	280815	29928	61530	6891	16928	55522	43649	12551	197719	116808	62704	49501	46663	34778	18501	55076	106900	143305	77900	18848	89350	12596

Unid.*—Unidentified as to year of manufacture. Data from R. L. Polk & Co.

AND YEAR OF MANUFACTURE—*continued*

Model	Neb.	Nev.	N. H.	N. J.	N. M.	N. Y.	N. C.	N. D.	Ohio	Okla.	Ore.	Pa.†	R. I.	S. C.	S. D.	Tenn.	Tex.	Utah	Vt.	Va.	Wash.	W.Va.	Wis.	Wyo.	Totals
LINCOLN																									
6 Mo. '46	7	3	6	112	13	141	35	1	152	28	14	122	20	12	3	35	141	14	3	44	34	6	44	2	2159
'45-'42	42	14	10	223	17	152	89	11	289	76	61	343	35	41	12	71	466	29	7	43	72	38	83	18	5666
'41	135	67	60	816	76	1926	292	41	935	266	267	1179	104	156	44	270	1170	84	40	269	290	126	364	71	20097
'40	173	57	71	711	67	1845	266	33	1002	329	261	1162	140	116	40	210	1035	111	48	280	307	143	322	69	20031
'39	160	56	51	620	68	1607	258	48	892	308	284	991	104	103	50	236	937	111	35	292	362	112	311	69	18385
'38	132	37	46	486	53	1459	230	52	783	216	220	800	82	79	32	149	669	83	36	219	354	90	265	28	14979
'37	190	73	78	724	74	2368	290	77	1359	298	408	1393	150	121	66	220	858	143	44	277	616	219	504	79	22853
'36	74	23	38	318	37	1019	121	39	529	162	190	589	45	46	28	67	349	68	20	105	323	67	227	37	10100
'35	5	3	4	38	1	131	20	3	33	16	8	65	9	5	2	10	23	18	3	11	9	10	6	1	1027
'34	1	6	4	58	2	149	9	1	37	4	8	52	6	3	1	9	17	4	1	8	9	7	11	1	881
'33	5	3	3	27	2	68	6	.....	16	3	8	26	3	.....	1	.....	12	.....	2	6	7	3	4	.....	488
'32	5	1	.....	38	4	108	5	1	26	3	10	54	6	2	2	1	12	2	2	1	19	.....	8	.....	723
'31	5	1	1	30	1	72	3	2	15	.....	8	26	7	1	2	3	11	3	1	2	7	.....	5	1	483
'30	11	1	7	27	.....	77	4	3	26	4	7	21	2	3	1	3	13	2	2	2	8	10	5	.....	519
Before '30	12	1	3	36	4	108	7	4	52	12	19	49	8	1	2	7	19	2	2	2	25	7	10	2	926
Unid.*	4	.....	1	17	9	34	11	.....	88	9	4	3	1	6	34	11	17	.....	1	.....	.....	1	3	3	810
Total	961	346	383	4281	448	11564	1646	316	6214	1754	1797	6875	722	695	320	1302	5749	674	247	1561	2442	839	2172	380	120129
MERCURY																									
6 Mo. '46	96	29	23	544	98	692	318	14	1197	214	151	624	102	150	62	292	976	110	16	266	232	39	520	25	14993
'45-'42	240	34	24	461	105	1026	493	121	1076	342	201	909	78	292	103	336	1779	107	30	223	331	151	500	76	19641
'41	866	141	238	2349	511	5181	1989	512	5182	1479	1030	4144	387	1168	343	1363	6222	523	161	1391	1283	594	1973	260	55394
'40	851	120	239	2002	339	5147	1579	407	4029	1288	872	3594	414	951	403	981	4276	423	168	1226	1224	492	1737	233	74076
'39	677	86	184	1529	216	3940	1305	329	3108	1058	690	2804	292	711	300	675	2779	279	107	972	948	432	1247	183	54907
'38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'36	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'32	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Before '30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Unid.*	63	3	12	117	37	183	102	2	101	108	20	26	5	27	229	56	273	9	7	56	4	4	62	4	5075
Total	2793	413	720	7002	1306	16169	5786	1385	14693	4489	2964	12101	1278	3299	1440	3703	16305	1451	489	4134	4022	1712	6039	781	254086
Nash-Ajax-Lafayette																									
6 Mo. '46	84	22	148	1308	92	1880	401	17	2112	336	381	1984	135	173	99	545	1328	161	49	474	550	106	1277	30	27066
'45-'42	234	41	67	676	72	1789	322	249	1892	309	529	1968	176	250	159	502	1168	170	45	148	827	223	1574	58	27933
'41	567	94	188	2844	203	5902	637	404	6644	739	1683	6143	569	333	305	1124	2230	361	137	642	2680	603	5062	164	79722
'40	360	80	176	2073	117	3963	436	210	4767	593	1093	4668	365	276	228	621	1785	237	110	383	1415	484	3560	134	57000
'39	297	60	199	1621	82	3478	341	191	2947	478	799	3351	385	181	181	495	1014	185	112	280	1038	329	2713	91	43521
'38	293	42	136	1582	69	3070	309	157	1749	288	663	2332	203	103	139	382	762	172	88	271	730	211	2487	80	32172
'37	463	120	356	2609	119	5629	368	213	5006	434	1334	6514	500	168	227	766	1158	313	184	392	1622	511	7081	130	68840
'36	427	102	250	1245	73	3513	189	136	2390	295	1024	2988	272	86	196	371	669	324	146	262	1080	370	2740	126	38073
'35	145	19	114	424	26	1084	59	85	660	142	209	878	57	16	67	106	200	125	37	153	218	111	1568	24	14735
'34	104	22	130	583	17	1427	74	43	614	72	192	912	108	20	54	79	135	94	43	99	200	116	853	24	11734
'33	16	1	40	147	1	468	38	5	130	19	45	156	27	6	5	22	19	21	9	28	58	12	192	3	2925
'32	59	5	64	343	4	1047	40	11	262	29	131	552	32	15	15	37	71	24	46	32	169	53	252	8	5831
'31	46	6	50	227	4	622	17	23	220	24	80	332	30	8	18	27	72	31	29	33	116	37	330	11	4834
'30	63	10	48	180	7	579	19	29	215	16	68	318	23	5	39	29	85	32	38	22	113	24	351	11	4838
Before '30	333	16	95	514	29	1382	92	195	840	116	358	1047	49	44	155	70	292	83	139	75	455	95	1099	46	15884
Unid.*	7	2	2	15	10	32	3	1	50	12	6	38	4	3	243	28	25	4	1	2	2	1	2418	4	5227
Total	3498	642	2063	16391	925	35865	3345	1969	30498	3902	8595	34181	2935	1667	2130	5204	11013	2337	1211	3296	11273	3286	33557	944	440335
OLDSMOBILE																									
6 Mo. '46	45	18	69	732	81	1061	216	3	1325	167	170	739	55	83	63	207	705	75	24	185	219	27	449	14	14916
'45-'42	387	72	126	2266	176	6324	934	211	4376	600	736	4556	406	522	177	747	3621	235	142	422	1150	448	1697	97	61143
'41	1508	308	812	10446	787	26334	3683	605	17840	2894	3052	18839	1954	2052	632	3026	11252	1124	596	3508	5696	1902	6847	442	257063
'40	1057	198	833	8065	650	19197	2426	474	12629	2381	2120	14417	1699	1309	530	1943	7549	961	530	2669	3790	1584	4890	323	187827
'39	840	140	654	5860	410	13650	1641	345	7901	1740	1457	9520	1137	711	448	1514	5014	640	431	1754	2658	1011	3092	274	126598
'38	618	125	435	4414	238	10482	1105	222	5233	1227	1023	6282	837	407	239	959	3665	439	306	1040	2074	720	2327	169	88930
'37	1197	184	786	8324	427	19106	1871	396	12253	2160	1966	13522	1756	754	412	1830	5835	953	428	1810	4379	1511	5580	343	177951
'36	1239	199	809	8236	352	18676	1571	354	12166	1841	1953	11834	1577	653	457	1490	4858	723	506	1612	3932	1606	5395	285	163852
'35	867	116	432	4051	231	9304	1016	339	6040	1371	970	5758	713	420	355	758	2407	486	295	975	2086	827	3232	196	92021
'34	402	42	209	1596	93	4600	384	140	2759	472	461	2578	264	156	145	315	887	248	170	297	1203	369	1422	71	38358
'33	124	17	92	611	31	1823	135	43	677	92	130	977	78	44	45	59	153	69	52	118	374	103	524	24	11884
'32	52	11	41	336	6	967	110	22	300	47	68	347	42	25	26	44	85	11	60	48	192	26	198	14	5738
'31	138	9	74	501	20	1479	104	29	790	74	181	679	53	32	92	69	138	38	67	85	357	75	512	24	10971
'30	107	11	37	215	10	801	38	35	445	47	101	433	22	13	88	55	110	26	26	39	210	53	385	13	6431
Before '30	321	19	49	233	33	769	52	151	1000	106	263	659	32	16	220	71	224	70	46	62	478	89	661	49	11476
Unid.*	9	2	4	40	8	162	26	4	78	21	11	241	6	22	552	59	90	4	2	2	.....	10	61	3	7025
Total	8911	1471	5462	55926	3453	134735	15312	3373	85812	15240	14662	91381	10631	7219	4479	13146	46593	6102	3681	14626	28798	10361	37272	2341	1262164
PACKARD																									
6 Mo. '46	21	18	41	494	24	595	123	3	558	60	103	486	22	9	18	102	372	31	23	88	137	13	138	8	6943
'45-'42	142	59	66	1183	53	3109	338	28	1766	205	309	2530	175	191	23	426	1225	92	91	179	496	222	494	46	27096
'41	288	129	308	3134	160	7343	756	60	3935	529	741	6317	486	512	54	829	2213	277	221	1119	1495	570	1192	90	67375
'40	430	148	364	4487	188	9864	1018	89	5432	676	902	8440	544	593	86	1108	3114	407	335	1220	1733	870	1533	132	87992
'39	190	58	183	2210	93	4620	520	31	2119	436	349	3506	370	298	54	527	1475	157	141	810	748	390	769	56	42654
'38	274	71	158	2595	130	5777	548	59	2602	399	463	3721	327	286	83	474	1441	212	163	665	848	440	851	69	46244
'37	446	149	441	5619	232	11994	1196	97	6719	690	968	9353	872	598	146	1056	2708	409	344	1284	2059	1012	1925	136	98789
'36	244	86	173	2346	98	5767	493	51	2824	356	512	3987	352	223	74	367	990	244	172	680	855	436	1248	44	46206
'35	116	20	74	1002	45	2481	189	28	1036	184	197	1643	122	84	39	148	390	105	76	279	351	148	474	24	19141
'34	9	8	15	336	6	678	38	5	213	29	43	401	30	10	.....	30	78	14	17	50	72	32	60	7	4322
'33	11	4	6	162	7	369	24	.....	152	20	21	209	16	7	6	20	45	14	12	37	46	10	48	1	2663
'32	17	7	18	332	8	674	38	4	255	29	61	436	30	11	3	29	85	22	21	36	97	30	76	5	4490
'31	9	3	10	177	8	367	17	2	123	11	25	199	27	7	3	16	44	9	19	31	63	13	31	1	2823
'30	24	4	19	219	10	422	22	3	203	23	76	295	17	10	9	19	57	16	15	22	104	25	55	1	3407
Before '30	41	16	19	350	21	622	45	15	272	53	145	512	34	18	27	40	113	27	38	47	247	41	108	4	6413
Unid.*	8	.....	.....	18	2	53	6	.....	22	7	6	36	2	9	72	26	21	1	1	2	1	4	7	.....	2850
Total	2270	780	1895	24664	1085	54735	5371	475	28231	3707	4921	42071	3426	2866	697	5217	14371	2037	1689	6549	9352	4256	9009	624	469098
PLYMOUTH																									
6 Mo. '46	333	61	262	2680	305	3747	1269	23	5481	971	634	4080	213	658	320	1637	4284	227	131	1483	781	275	1706	94	64552
'45-'42	1090	160	194	3934	350	9802	2785	768	10051	1036	1295	9567	585	1560	426	2296	7389	602	239	1361	2221	1283	2541	257	119932
'41	3868	658	1370	18009	1266	43881	9631	2252	38423	4666	5824	40647	3299	5286	1540	8014	22747	1990	1045	9748	9581	5239	9926	925	499964
'40	2961	471	1391	14082	1022	35301	6413	1651	30061	3970	4625	30795	2745	3644	1352	5367	15560	1733	912	8228	7209	4138	8770	709	391614
'39	3266	398	1369	14382	1008	35789	6872	1318	27109	3599	3857	29285	3097	3580	1326	5259	15571	1513	844	6509	6393	3739	8155	719	364555
'38	2358	258	873	10041	765	24647	4074	937	14387	3227	2382	19155	1275	1849	1023	3332	10666	954	671	4969	4275	2575	6093	481	241425
'37	4354	552	1629	17218	1328	40536	7554	1510	36639	5318	6072	39092	3560	3718	1557	7086	18554	2234	1154	6761	10171	5877	12174	942	464284
'36	4642	490	1570	14820	1198	36336	6100	1276	32088	4750	5582	35800	3413	2937	1570	5734	14359	2296	1161	6473	9274	5593	11265	944	414321
'35	3190	302	938	7593	699	18491	4025	1295	17612	3377	3629	17085	1891	1605	1168	3687	8594	1381	770	4178	5868	3219	7861	572	243557
'34	1887	185	723	5305	473	13532	3458	636	13740	2261	2683	13382	1282	1324	567	2859	5987	896	542	2570	4305	2575	4620	311	168407
'33	1342	86	551	3907	264	10860	2036	469	9449	1182	2159	8998	898	919	333	1707	3780	597	364	1543	3252	1610	3309	211	118488
'32	453	41	313	1755	81	5592	574	178	3487	422	951	4356	337	210	171	570	975	128	248	456	1636	576	1379	86	48621
'31	324	23	76	314	41	1020	165	96	961	197	249	610	49	72	81	205	555	48	81	274	544	206	739	39	16189
'30	387	16	41	162	30	637	224	110	722	159	278	710	31	46	158	160	449	33	42	100	432	128	611	37	11602
Before '30	376	10	36	150	43	475	655	196	591	140	265	403	17	45	155	103	487	28	45	97	527	65	565	25	10889
Unid.*	47	8	7	71	24	290	52	7	210	101	26	299	11	53	1369	215	160	15	5	26	1	27	112	11	18802
Total	30878	3717	11343	114423	8897	280936	55887	12722	241011	35376	40511	254264	22703	27506	13116	48231	130117	14675	8252	54776	66470	37123	79827	6363	3196200

Unid.*—Unidentified as to year of manufacture. Data from R. L. Polk & Company.

CARS IN USE BY MAKES, STATES

Model	Ala.	Ariz.	Ark.	Calif.	Colo.	Conn.	Del.	D. C.	Fla.	Ga.	Idaho	Ill.	Ind.	Iowa	Kan.	Ky.	La.	Me.	Md.	Mass.	Mich.	Minn.	Miss.	Mo.	Mont.
PONTIAC																									
6 Mo. '46	162	24	104	1329	109	486	63	213	226	288	55	659	354	293	163	257	273	174	320	389	3130	366	103	288	60
'45-'42	723	227	530	3892	584	1543	243	403	1405	1244	242	5210	2207	1004	1146	815	1182	544	1217	2808	6158	1289	651	1274	290
'41	2526	1118	1784	29098	2454	6687	1082	2451	5145	3697	859	20932	9661	3884	4134	3001	3896	2420	5424	12773	24468	5028	1995	6261	638
'40	1325	697	1092	24403	1611	5259	781	1753	3143	2151	579	14725	6202	2989	2576	2081	1897	1566	3921	8138	12657	3434	998	4821	343
'39	1082	412	691	15183	1003	3515	490	807	2017	1302	271	9109	3200	2390	1748	1419	1348	1172	2460	5665	6845	2455	725	3210	228
'38	678	312	424	10118	612	1863	310	405	1402	794	241	5972	2393	1691	1436	998	777	851	1557	3150	3855	1818	416	2111	191
'37	1405	727	981	20499	1743	4813	743	729	2879	1789	637	14065	7175	3775	3381	2427	1184	1710	3723	7945	12757	4643	755	4965	557
'36	907	539	887	16424	1420	3452	485	451	1912	1129	533	9528	5287	2890	2722	1789	903	1218	2437	5770	7776	3389	602	3842	494
'35	425	381	560	9416	1039	1790	247	194	1082	674	319	5240	3308	1983	1757	1021	433	636	1240	2924	4325	2430	320	2241	392
'34	168	128	159	2585	415	1032	125	83	536	342	110	2053	1022	768	688	430	150	420	633	1552	1337	726	164	1037	138
'33	137	102	114	2420	335	1169	125	81	449	267	70	1734	780	606	628	366	97	332	634	1379	1114	756	79	949	143
'32	51	46	56	981	167	359	48	24	171	88	32	499	352	269	269	139	46	218	244	515	366	370	27	386	72
'31	69	51	85	1457	249	566	54	24	218	118	55	941	680	681	501	232	76	301	267	688	693	818	33	680	88
'30	18	24	30	900	119	165	19	10	75	27	30	485	283	389	252	89	24	141	101	174	316	451	22	274	35
Before '30	58	70	79	1911	248	201	25	6	70	65	82	983	939	787	771	171	62	156	121	189	894	1174	43	669	126
Unid.*	24	9	18	372	14	31	10	254	95	94	10	240	44	24	63	25	58	8	46	45	5783	9	34	63	17
Total	9758	4867	7594	140988	12122	32931	4850	7888	20825	14069	4125	92375	43887	24423	22235	15260	12406	11867	24345	54102	92474	29156	6967	33071	3715
STUDEBAKER																									
6 Mo. '46	144	32	56	1406	90	330	41	94	199	225	72	959	556	290	181	149	282	134	267	225	584	366	74	242	50
'45-'42	560	157	249	3472	390	613	122	1590	850	722	274	3362	2221	906	599	408	878	195	709	1056	1642	1080	264	836	271
'41	1438	579	544	14523	1136	2090	322	773	2375	1673	770	8665	6455	2418	1491	1133	1856	506	1882	3535	4319	2982	532	2872	683
'40	1115	455	528	13431	953	1531	235	558	1991	1163	624	6895	4755	1855	1180	873	1308	389	1384	2351	3049	2420	507	2767	599
'39	411	334	284	11676	637	1218	200	437	1383	815	382	4907	3354	1348	849	622	686	353	1167	2221	2042	1741	278	1780	430
'38	167	154	102	6114	363	747	106	277	556	335	204	2531	1855	745	498	304	381	234	617	1127	729	1010	66	709	179
'37	355	335	252	8257	754	1714	243	324	983	722	475	5273	3687	1539	1039	736	518	476	1430	2524	1875	1908	184	1480	339
'36	195	266	118	8104	481	909	95	154	497	341	298	2654	2394	977	637	419	284	282	556	1322	881	1154	65	945	241
'35	93	129	80	4230	279	474	48	65	242	242	186	1411	1120	652	435	244	187	182	282	721	490	758	57	576	202
'34	63	114	87	3343	246	425	40	50	226	142	121	911	628	435	414	177	77	155	236	593	391	672	42	415	144
'33	19	37	19	1995	65	185	14	16	73	45	23	244	284	102	104	83	38	44	82	206	96	199	12	144	37
'32	24	44	24	1698	92	186	20	21	82	50	29	276	247	101	98	69	37	72	122	239	152	243	18	148	21
'31	28	28	17	1545	152	197	18	25	76	67	47	300	215	222	126	63	27	112	109	226	163	294	14	143	41
'30	22	54	19	1355	68	164	16	12	64	25	27	337	188	191	122	70	19	84	89	183	160	235	11	107	33
Before '30	40	153	45	4211	211	270	28	11	95	65	80	665	466	371	263	112	54	144	166	211	412	465	22	252	78
Unid.*	41	5	23	492	10	63	5	144	64	45	25	112	45	26	18	17	40	6	25	24	1170	9	6	78	38
Total	4713	2876	2447	85852	5927	11116	1553	4551	9756	6680	3637	39502	28468	12178	8054	5479	6672	3368	9123	16764	18155	15536	2152	13492	3363
WILLYS ■																									
6 Mo. '46																									
'45-'42	367	40	79	1245	65	72	18	55	248	303	57	269	226	123	88	77	186	42	130	165	442	94	90	106	42
'41	568	96	119	3295	155	262	47	57	636	326	99	677	664	289	200	170	235	149	331	517	901	173	109	333	69
'40	475	95	139	3284	210	367	55	44	771	375	129	1182	967	377	254	247	319	212	385	574	946	293	140	349	76
'39	129	35	37	1921	86	173	18	42	318	87	26	325	249	91	75	123	112	130	124	232	217	139	41	205	19
'38	156	61	73	1698	97	221	28	29	451	176	53	625	431	237	243	165	216	79	194	292	382	300	47	349	29
'37	354	228	231	7739	513	761	78	55	849	360	164	1968	1813	623	505	528	261	225	543	959	1509	836	113	950	157
'36	76	78	47	3051	99	72	5	6	273	117	52	120	218	66	30	72	56	19	26	68	169	77	24	51	24
'35	46	58	25	2424	24	24	1	2	100	70	22	48	148	20	25	29	34	4	5	13	39	26	7	35	20
'34	36	13	24	1025	11	24	1	2	154	50	10	39	33	18	14	18	30	8	5	22	47	8	11	18	6
'33	24	13	5	824	36	40	6	7	113	32	4	91	94	60	45	67	12	11	41	56	52	112	11	86	3
'32	7	5	8	365	34	39	9	8	33	19	11	178	128	89	103	65	14	31	59	75	85	164	3	119	14
'31	9	17	15	556	95	47	10	3	54	18	21	209	182	190	134	74	18	48	67	85	82	274	7	202	19
'30	14	18	18	465	102	59	7	2	42	13	18	248	124	213	140	48	12	46	53	61	106	240	7	219	30
Before '30	62	77	55	1940	250	152	22	9	115	67	75	753	536	835	653	193	32	132	149	123	404	843	21	602	141
Unid.*	6	2	5	10	3	3	5	39	35	13	4	27	8	18	10	31	11	3	31	8	422	5	8	11	.....
Total	2329	836	880	29842	1780	2316	310	360	4192	2026	745	6759	5801	3249	2519	1907	1548	1139	2143	3250	5803	3584	639	3635	649
MISC.																									
6 Mo. '46	61	2	17	196	9	56	3	6	47	102	5	42	17	17	28	13	29	5	3	88	54	9	5	34	4
'45-'42	62	4	26	512	31	74	27	56	183	328	18	124	67	23	32	42	78	17	38	487	128	61	22	71	3
'41	138	16	67	536	119	190	45	60	299	678	23	1911	213	101	107	106	207	47	66	1890	329	140	73	195	9
'40	103	9	52	497	90	81	63	45	237	412	20	1035	203	95	68	65	149	43	95	1695	230	174	64	192	9
'39	83	27	46	773	105	126	54	38	324	321	43	327	324	149	96	83	122	40	77	1342	270	144	54	153	13
'38	32	16	15	467	49	65	19	17	167	157	12	132	97	75	29	30	89	11	27	761	115	25	33	73	3
'37	71	29	33	635	109	97	36	27	230	307	25	240	134	134	67	47	138	37	49	1596	243	34	54	159	7
'36	52	23	39	839	140	162	63	18	210	296	36	391	230	159	115	78	141	33	90	1406	447	137	44	212	22
'35	48	21	26	831	131	178	56	9	197	167	25	312	238	103	113	55	79	26	80	915	262	136	31	150	23
'34	34	15	27	722	70	170	47	14	164	176	14	208	116	72	60	41	60	44	67	639	153	85	24	129	6
'33	33	16	22	948	71	166	63	7	292	88	11	235	144	72	77	88	49	49	91	368	169	121	15	157	21
'32	35	22	20	839	72	147	62	13	241	79	10	192	112	79	58	52	47	50	86	374	158	140	19	137	14
'31	21	32	37	1568	163	265	103	16	130	134	30	269	143	142	102	65	60	95	148	568	207	168	14	218	29
'30	22	67	42	2138	219	388	132	14	160	95	83	501	228	369	286	98	51	130	188	469	305	376	20	292	75
Before '30	71	142	96	6230	476	700	306	49	293	185	204	1498	731	878	616	242	102	322	435	742	867	1153	66	911	270
Unid.*	218	62	83	151	214	24	67	24	289	147	133	539	557	258	27	41	132	43	98	338	1933	20	508	71	106
Total	1084	503	648	17882	2068	2889	1146	413	3463	3672	692	7956	3554	2726	1879	1144	1533	992	1638	13678	5870	2923	1046	3154	614

■—Includes Whippet and Willys-Knight. **Unid.***—Unidentified as to year of manufacture. Data from R. L. Polk & Co.

U. S. SUMMARY—BY MAKES AND

	July 1 Total	6 Mo. 1946	1945-42	1941	1940	1939	1938	1937	1936	1935	1934	1933	1932	1931	1930	Before 1930	Unid.
Buick	1,612,258	15,875	85,565	364,533	274,065	193,703	149,691	192,800	135,993	41,180	35,194	20,354	18,610	22,330	16,377	39,249	6,739
Cadillac	146,744	3,973	13,869	59,992	13,784	11,932	8,195	11,439	9,423	2,615	2,130	1,141	1,297	2,497	1,355	2,484	618
Chevrolet	6,172,816	53,487	221,274	980,605	761,877	563,201	447,036	754,995	811,311	435,285	320,816	229,049	129,063	186,478	104,029	137,680	36,630
Chrysler	620,070	17,023	30,884	149,927	86,729	61,519	42,829	86,545	45,054	24,843	15,095	10,516	8,343	10,372	8,803	18,086	3,502
De Soto	447,453	16,578	21,990	95,216	66,505	50,973	33,631	70,526	33,550	17,631	5,744	8,014	7,249	6,405	4,821	6,036	2,504
Dodge	1,559,542	39,180	61,628	230,449	188,460	175,155	100,433	254,804	216,908	113,037	50,192	39,437	10,125	13,598	11,867	43,038	11,231
Ford	5,744,934	114,638	136,196	659,555	524,845	421,643	332,477	725,371	664,192	494,737	277,743	99,915	90,106	296,329	373,341	487,039	46,807
Graham-G.P.-Jewett	54,520	.....	88	1,102	1,435	3,884	3,369	12,390	9,005	7,225	3,204	2,126	1,559	2,002	2,222	4,380	529
Hudson	568,887	22,917	34,624	85,044	78,227	44,411	37,136	87,841	71,850	35,669	21,293	8,520	4,993	7,058	6,510	15,673	5,121
Hupmobile	23,970	1	35	309	196	908	1,104	246	1,352	3,288	1,941	1,403	1,650	2,428	1,999	6,676	434
La Salle	108,155	.....	.....	2	21,051	20,153	13,027	26,804	10,245	6,312	2,723	1,296	1,022	1,274	1,163	1,974	1,109

Unid.*—Unidentified as to year of manufacture.

AND YEAR OF MANUFACTURE—*concluded*

Model	Neb.	Nev.	N. H.	N. J.	N. M.	N. Y.	N. C.	N. D.	Ohio	Okla.	Ore.	Pa.†	R. I.	S. C.	S. D.	Tenn.	Tex.	Utah	Vt.	Va.	Wash.	W.Va.	Wis.	Wyo.	Totals
PONTIAC																									
6 Mo. '46	80	32	76	1236	55	1267	437	.....	1769	204	283	880	46	122	56	305	884	106	39	287	237	26	489	17	18821
'45-'42	576	112	130	3260	222	6453	1950	254	5270	727	1077	5110	368	1012	139	1037	3815	488	243	619	1545	580	1507	143	73468
'41	2032	390	965	15150	776	30269	6198	781	23149	3751	4269	22386	2173	2926	546	3656	12673	1435	792	4994	5680	2074	6533	476	315490
'40	1352	248	774	11487	510	21219	3584	462	15261	2768	2884	15732	1471	1585	358	2064	6739	1004	583	3765	4058	1574	4719	261	213604
'39	980	117	617	8029	296	14893	2292	279	9445	1934	1438	9428	1113	991	260	1466	4145	462	372	2334	2253	906	2879	154	135830
'38	681	96	388	5196	178	10211	1468	251	5769	1297	1044	5886	562	552	230	966	3213	373	227	1314	1572	614	2314	109	88886
'37	1670	258	810	10527	419	20919	2539	459	17474	2788	2689	16302	1482	1130	525	1831	5625	836	574	2519	4136	1692	6064	340	209615
'36	1422	168	623	7029	297	15111	1534	370	11951	2259	2041	10518	1097	728	409	1502	4267	624	484	1873	2880	1482	4743	304	150392
'35	1012	104	376	3574	251	8668	1106	358	5991	1482	1027	5448	617	493	357	802	2725	412	288	1239	1668	686	3254	211	98516
'34	412	30	222	1749	74	4516	580	136	1686	493	398	2695	324	220	129	323	1004	141	193	453	619	282	1268	78	34806
'33	298	28	217	1842	55	5062	560	143	1486	350	317	2557	333	212	81	177	781	112	134	427	523	232	1084	54	31931
'32	145	8	115	658	23	1701	217	30	766	117	114	883	127	58	33	93	229	28	92	177	236	119	498	17	12279
'31	288	7	168	567	31	1902	264	124	1404	197	286	1114	191	91	74	126	357	77	118	239	423	168	922	35	18796
'30	145	4	65	264	11	778	61	62	641	98	148	595	56	23	54	66	197	51	52	98	211	62	483	16	8694
Before '30	658	12	91	300	39	964	112	256	1351	223	352	701	59	36	225	104	440	63	65	153	507	106	1210	25	17955
Unid.*	14	5	6	41	7	197	17	2	79	38	14	93	11	18	490	79	49	5	3	11	.....	9	48	6	8632
Total	11765	1619	5643	70909	3244	144130	22919	3967	103492	18726	18381	100328	10030	10197	3966	14597	47143	6217	4259	20502	26548	10572	38015	2246	1425715
STUDEBAKER																									
6 Mo. '46	81	17	38	563	30	952	254	12	866	128	267	1275	84	98	51	239	651	76	29	242	334	51	357	21	13784
'45-'42	441	69	97	1047	123	2848	781	195	2793	374	909	3045	249	300	136	734	2348	317	73	384	1166	463	948	98	43371
'41	1186	224	294	4014	346	7870	2033	495	7806	1172	2411	10305	659	728	379	1891	5388	931	200	1852	3786	1307	3004	302	124103
'40	768	182	312	2994	259	6388	1404	361	6942	965	1612	7609	540	651	376	1413	3684	789	159	1549	2674	1238	2302	253	98340
'39	594	123	260	2411	196	5283	865	224	4928	697	1089	6429	596	474	207	935	2746	685	157	1039	1898	862	1998	136	74387
'38	341	59	160	1484	93	3021	259	114	2185	356	652	3167	237	129	125	325	1588	365	83	484	1121	405	878	78	37819
'37	602	128	303	3199	174	6378	451	184	5668	670	1290	7885	580	294	222	689	2799	655	154	613	2254	880	2123	159	75776
'36	490	87	183	1400	95	3155	210	104	2521	496	980	2952	182	142	141	369	1508	395	57	398	1809	376	1453	112	43884
'35	333	45	111	786	50	1708	165	101	1515	265	545	1457	93	79	119	192	896	171	50	240	1041	212	779	58	24396
'34	283	32	122	666	48	1832	147	90	1157	178	420	1183	65	103	93	117	559	120	32	198	769	138	511	38	19048
'33	95	11	48	209	17	693	47	19	361	61	90	452	33	17	25	57	190	32	19	87	241	41	193	4	7208
'32	78	13	47	344	11	1018	77	27	396	48	122	601	40	17	32	43	205	36	32	69	259	37	205	13	7881
'31	131	17	60	328	14	890	52	38	373	50	214	537	35	31	53	67	206	23	25	64	330	72	287	18	8170
'30	166	14	43	223	23	598	39	43	370	43	201	499	26	18	48	43	138	47	26	52	286	60	284	18	6941
Before '30	373	25	77	400	46	1015	130	125	807	111	414	843	53	40	138	76	329	84	81	86	654	103	807	44	15554
Unid.*	11	6	5	26	17	74	14	1	471	8	7	67	2	2	298	41	63	9	2	4	3	1	79	3	3745
Total	5973	1052	2160	20094	1542	43723	6928	2133	39159	5622	11223	48306	3474	3123	2443	7231	23298	4735	1179	7361	18805	6248	16008	1355	604387
WILLYS*																									
6 Mo. '46	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'45-'42	50	8	21	246	33	483	152	63	690	104	163	642	60	81	17	214	583	48	17	100	198	144	45	8	8790
'41	98	23	91	586	40	1240	408	113	1300	147	478	1841	199	148	76	401	573	138	48	209	337	231	152	50	19384
'40	101	21	110	817	61	1719	416	85	2229	243	606	2059	120	165	91	518	710	110	74	225	610	348	462	55	24220
'39	55	7	49	356	29	843	92	23	876	121	133	519	18	51	25	144	229	56	17	154	103	100	92	14	9080
'38	117	10	52	523	38	1257	177	59	953	178	253	918	36	73	38	135	419	57	46	188	239	166	293	38	12889
'37	375	34	177	1326	104	2822	479	131	4008	499	792	2680	132	241	116	437	971	188	119	487	1272	621	954	95	41382
'36	52	14	25	101	25	235	22	17	630	86	490	106	5	38	13	138	157	40	14	35	673	37	45	11	7905
'35	18	6	4	40	18	76	30	4	204	52	212	27	4	24	6	80	98	21	6	18	249	19	23	2	4490
'34	6	2	4	27	4	95	22	1	106	29	115	36	5	26	1	54	66	5	3	9	137	7	11	3	2401
'33	26	4	11	135	5	405	20	11	310	25	51	199	23	39	4	32	61	8	13	11	105	34	69	3	3449
'32	71	.....	16	90	2	411	24	20	311	29	68	383	15	9	9	26	52	7	40	26	75	51	197	7	3594
'31	170	5	25	143	2	492	24	46	413	22	69	360	24	13	41	34	84	12	32	42	129	85	202	13	4918
'30	145	2	17	101	14	411	17	64	409	47	101	320	24	3	51	26	105	9	32	32	187	37	224	7	4692
Before '30	622	17	76	298	22	1075	110	298	1617	145	303	801	41	39	231	86	506	57	80	98	526	117	779	28	16213
Unid.*	7	1	3	39	1	37	12	3	53	6	5	190	.....	4	78	24	19	1	8	4	1	.....	12	1	1227
Total	1913	154	681	4828	398	11595	2005	938	14109	1733	3839	11061	708	954	797	2351	4633	757	549	1638	4841	1997	3560	335	164613
MISC.																									
6 Mo. '46	.....	2	3	26	7	132	14	.....	57	8	8	4	.....	3	2	25	101	6	1	24	5	1	22	3	1304
'45-'42	9	4	.....	79	20	278	59	8	134	24	88	127	21	32	4	87	193	7	2	117	83	26	140	8	4086
'41	50	7	21	270	32	1791	134	23	283	88	182	97	57	79	19	126	498	31	20	95	697	41	372	23	12601
'40	40	4	19	152	29	2490	107	16	217	98	149	395	36	68	9	97	310	33	11	52	111	17	82	21	10299
'39	51	13	22	238	21	846	171	23	468	82	163	218	40	91	16	99	318	39	8	69	161	81	221	24	8617
'38	22	10	14	105	12	473	71	10	146	44	70	50	20	39	22	51	173	12	16	49	51	27	69	5	4077
'37	27	20	20	190	15	585	85	28	241	54	159	119	24	64	29	68	272	42	19	42	146	26	122	16	6951
'36	51	10	28	216	23	928	50	27	480	114	234	346	43	64	29	82	249	50	27	53	182	54	198	23	8944
'35	44	5	30	214	23	568	57	17	407	60	142	293	32	45	27	64	165	19	17	60	137	39	172	14	6863
'34	24	6	22	172	15	498	43	10	282	56	112	259	55	43	13	56	142	25	20	60	116	42	109	5	5342
'33	33	4	28	229	9	663	92	14	288	39	89	347	42	56	3	51	149	21	17	70	109	37	121	6	5888
'32	28	8	29	239	8	655	53	12	271	44	99	320	33	19	8	46	95	14	24	51	99	32	129	6	5380
'31	46	21	46	388	12	976	50	33	456	47	208	545	65	36	29	39	133	40	52	51	249	46	237	6	8539
'30	152	22	82	412	34	1175	66	59	664	96	414	805	63	29	75	66	229	48	52	96	403	113	399	27	12329
Before '30	506	42	175	820	64	2309	161	279	1834	298	975	1983	135	79	260	122	534	129	150	206	1136	228	1134	72	31216
Unid.*	173	5	16	296	39	3464	1040	3	386	1400	97	312	45	591	84	138	795	19	652	45	39	79	364	51	16216
Total	1256	183	555	4046	363	17831	2253	562	6614	2552	3189	6220	711	1338	629	1217	4356	535	1088	1140	3726	889	3891	310	148821

—Includes Whippet and Willys-Knight. Unid.—Unidentified as to year of manufacture. †Data from R. L. Polk & Co.

BY YEAR OF MANUFACTURE

	July 1 Total	6 Mo. 1946	1945-42	1941	1940	1939	1938	1937	1936	1935	1934	1933	1932	1931	1930	Before 1930	Unid.
Lincoln	120,129	2,159	5,666	20,097	20,031	18,385	14,979	22,853	10,100	1,027	881	488	723	483	519	928	810
Mercury	254,086	14,993	19,641	85,394	74,076	54,907	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,075
Nash (Ajax-Laf.)	440,335	27,066	27,933	79,722	57,000	43,521	32,172	68,840	38,073	14,735	11,734	2,925	5,831	4,834	4,838	15,684	5,227
Oldsmobile	1,262,164	14,916	61,143	257,063	187,827	126,598	88,930	177,951	163,852	92,021	38,358	11,884	5,738	10,971	6,431	11,476	7,025
Packard	469,098	6,943	27,096	67,375	87,982	42,654	46,244	98,789	46,206	19,141	4,322	2,663	4,490	2,523	3,407	6,413	2,850
Plymouth	3,196,200	64,552	119,932	498,964	391,814	364,555	241,425	464,284	414,321	243,557	168,407	118,486	48,621	16,189	11,602	10,889	18,802
Pontiac	1,425,715	18,821	73,468	315,490	213,604	135,830	88,886	209,615	150,392	86,516	34,806	31,931	12,279	18,796	8,694	17,955	8,632
Studebaker	604,387	13,764	43,371	124,103	98,340	74,387	37,819	75,776	43,884	24,396	19,048	7,208	7,881	8,170	6,941	15,554	3,745
Willys	164,613	.....	8,799	19,384	24,220	9,060	12,889	41,382	7,905	4,490	2,401	3,449	3,584	4,918	4,692	16,213	1,227
Miscellaneous	148,621	1,304	4,066	12,601	10,289	8,617	4,077	6,951	8,944	6,863	5,342	5,888	5,380	8,538	12,329	31,216	16,216
Totals	25,142,697	448,190	997,268	4,106,927	3,182,157	2,425,996	1,736,349	3,390,202	2,892,560	1,674,568	1,021,374	606,673	368,544	626,193	591,940	888,843	184,913

TRUCKS IN USE BY MAKES,

As of July 1, 1946

Model	Ala.	Ariz.	Ark.	Calif.	Colo.	Conn.	Del.	D. C.	Fla.	Ga.	Idaho	Ill.	Ind.	Iowa	Kan.	Ky.	La.	Me.	Md.	Mass.	Mich.	Minn.	Miss.	Mo.	Mont.
AUTOCAR																									
6 Mo. '46	8	3	2	135	15	76	6	.....	50	9	5	46	13	2	3	3	14	2	31	151	15	5	1	32	4
'45	5	.....	.....	200	20	88	10	2	65	14	3	88	35	7	8	4	12	9	46	210	16	49	.....	36	4
'44	.....	14	.....	157	3	47	6	.....	.....	.....	.....	20	16	.....	3	3	1	2	32	155	14	7	1	14	1
'43	.....	.....	.....	12	.....	1	1	.....	.....	.....	.....	4	.....	.....	1	.....	1	.....	5	8	.....	.....	.....	.....	.....
'42	2	6	.....	34	2	11	6	.....	.....	2	4	15	4	.....	4	7	11	.....	33	56	4	.....	2	2	.....
'41	1	6	.....	299	4	139	14	3	13	12	2	103	9	.....	1	8	1	8	78	309	16	1	2	41	1
'40	2	8	.....	112	1	66	8	14	3	2	.....	61	5	3	.....	6	3	6	35	262	27	1	.....	20	3
'39	.....	1	2	88	.....	82	12	8	5	.....	.....	86	9	12	.....	10	2	2	58	187	19	1	.....	24	.....
'38	1	3	.....	86	2	43	9	14	5	.....	.....	55	2	5	1	.....	.....	2	47	180	12	7	.....	20	1
'37	.....	.....	.....	133	1	54	11	12	1	1	.....	55	3	1	1	3	.....	3	54	201	22	6	.....	9	.....
'36	1	.....	1	51	1	45	7	4	3	.....	1	50	3	.....	2	.....	.....	3	32	180	18	1	.....	6	1
'35	.....	1	.....	25	.....	35	3	3	.....	2	.....	21	1	.....	1	.....	.....	4	15	113	6	3	.....	5	.....
'34	.....	.....	1	27	.....	29	5	1	.....	1	.....	45	.....	.....	.....	1	.....	4	25	104	6	9	.....	4	.....
'33	1	.....	.....	27	.....	20	4	3	1	2	.....	28	3	2	.....	.....	.....	3	22	77	2	1	.....	9	.....
Before '33	5	5	5	266	3	61	13	9	4	5	1	164	14	5	7	5	1	6	71	208	23	15	5	48	1
Unid.*	1	.....	1	.....	6	.....	.....	.....	1	.....	.....	3	4	.....	.....	2	1	.....	1	5	59	.....	.....	4	.....
Total	27	47	12	1652	58	797	115	73	151	50	16	844	121	37	32	52	47	54	585	2406	259	109	11	273	16
BROCKWAY																									
6 Mo. '46	.....	.....	.....	14	.....	47	3	4	1	.....	.....	9	47	1	.....	.....	.....	7	40	76	19	1	.....	1	.....
'45	.....	.....	.....	16	.....	71	4	13	5	.....	.....	25	121	3	.....	5	.....	13	64	157	12	1	.....	.....	.....
'44	.....	.....	.....	8	.....	22	3	2	.....	.....	.....	2	17	.....	.....	.....	.....	9	52	105	.....	.....	.....	.....	.....
'43	1	.....	.....	3	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	3	1	.....	.....	.....	.....	.....
'42	.....	.....	.....	3	.....	9	2	.....	.....	.....	.....	.....	2	.....	2	.....	.....	3	27	28	2	.....	1	1	.....
'41	.....	.....	.....	20	.....	125	4	16	.....	.....	.....	2	2	.....	1	1	5	23	77	185	.....	.....	.....	1	.....
'40	.....	.....	.....	2	.....	59	2	3	.....	.....	.....	4	1	.....	1	1	.....	18	37	94	.....	.....	.....	1	.....
'39	.....	.....	.....	3	.....	78	4	13	.....	.....	.....	3	.....	.....	.....	2	.....	7	56	121	.....	2	.....	1	.....
'38	.....	.....	.....	3	.....	62	2	10	.....	.....	.....	1	.....	.....	.....	.....	.....	5	38	85	.....	.....	.....	.....	.....
'37	.....	1	.....	22	.....	46	3	5	1	.....	.....	2	.....	.....	.....	.....	.....	6	49	111	1	.....	.....	1	.....
'36	1	1	.....	4	.....	44	3	4	2	1	.....	1	1	.....	.....	.....	.....	9	40	85	3	.....	.....	.....	.....
'35	.....	.....	1	2	.....	13	1	.....	.....	.....	.....	3	2	.....	.....	2	.....	4	13	71	.....	.....	.....	1	.....
'34	.....	.....	.....	4	.....	18	.....	.....	1	.....	.....	1	3	.....	.....	.....	2	2	12	44	.....	.....	.....	.....	.....
'33	.....	.....	.....	3	1	8	.....	.....	.....	.....	.....	1	2	.....	.....	.....	.....	3	5	19	1	7	.....	.....	.....
Before '33	.....	.....	.....	22	.....	72	2	1	1	4	.....	8	1	2	3	.....	1	11	32	58	3	1	.....	6	.....
Unid.*	.....	.....	.....	.....	.....	2	.....	4	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	3	1	20	.....	.....	.....	.....
Total	2	2	1	129	1	676	33	75	12	6	.....	62	201	6	7	11	8	120	548	1239	61	12	1	13	.....
BUICK																									
6 Mo. '46	6	.....	6	5	1	.....	.....	.....	1	10	1	1	3	3	3	5	2	20	1	.....	1	2	.....	.....	.....
'45	1	.....	.....	2	.....	.....	.....	.....	.....	13	.....	1	3	.....	1	1	3	1	.....	.....	1	.....	.....	2	.....
'44	.....	.....	2	2	.....	.....	.....	.....	.....	9	.....	.....	1	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	1	.....
'43	.....	.....	.....	4	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'42	5	2	13	11	2	6	2	.....	1	16	3	6	2	2	14	3	53	2	1	5	10	3	6	.....	2
'41	5	6	8	52	7	6	5	.....	10	31	5	12	3	2	9	6	62	2	19	10	26	7	24	2	6
'40	12	6	9	54	6	9	5	.....	10	5	3	11	4	3	8	9	51	4	12	16	42	11	21	9	5
'39	2	9	9	30	9	6	3	.....	7	19	5	15	4	4	7	9	51	5	7	4	40	14	6	3	3
'38	2	2	9	28	10	2	4	.....	8	14	3	11	5	2	10	9	32	6	8	8	29	13	18	6	2
'37	7	2	9	52	5	6	5	3	4	24	3	14	6	6	11	9	25	4	15	13	31	12	24	6	3
'36	5	2	15	31	10	8	3	.....	12	24	6	13	14	5	14	6	25	7	8	11	17	15	16	8	9
'35	5	1	9	23	6	7	2	1	7	19	.....	7	9	2	9	10	9	5	1	9	7	12	8	10	1
'34	7	4	10	35	10	9	2	.....	9	16	1	7	9	5	19	17	8	12	3	18	6	13	14	10	4
'33	7	.....	8	22	8	21	2	.....	11	10	2	11	16	3	18	6	4	5	.....	8	8	10	4	13	1
Before '33	92	29	161	1027	331	483	15	1	113	127	102	144	398	255	587	104	50	197	41	125	110	388	52	302	182
Unid.*	.....	.....	3	6	1	1	.....	3	1	5	1	3	7	1	6	1	3	.....	3	3	52	3	3	5	1
Total	156	63	271	1384	406	564	48	8	196	342	135	256	484	293	717	195	385	270	119	230	380	503	196	377	196
CADILLAC																									
6 Mo. '46	3	.....	.....	4	.....	1	.....	.....	.....	2	.....	4	1	1	.....	3	1	6	.....	2	4	1	.....	.....	.....
'45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'44	.....	2	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
'43	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
'42	.....	2	9	5	.....	3	.....	.....	.....	16	.....	19	.....	.....	2	8	1	2	1	12	11	2	5	.....	.....
'41	.....	1	16	41	7	3	4	1	3	47	.....	56	.....	.....	2	35	22	13	8	34	30	13	17	.....	.....
'40	.....	2	3	18	.....	2	1	.....	.....	6	.....	38	.....	.....	1	6	3	1	1	19	9	.....	5	1	.....
'39	.....	.....	.....	15	3	.....	2	1	3	1	.....	35	.....	1	.....	10	1	4	1	10	11	1	3	1	.....
'38	1	2	.....	12	1	2	.....	.....	3	4	.....	20	2	.....	.....	2	4	2	2	5	3	.....	4	.....	.....
'37	1	2	.....	16	.....	1	2	1	3	2	.....	18	.....	.....	.....	7	5	5	3	8	5	2	3	1	.....
'36	.....	2	3	21	1	3	2	.....	.....	3	1	18	1	.....	2	4	.....	3	3	9	6	.....	1	2	.....
'35	1	.....	.....	15	2	1	.....	.....	.....	1	.....	5	.....	.....	2	3	1	.....	.....	1	4	1	.....	.....	1
'34	1	.....	.....	8	1	1	.....	.....	3	2	.....	4	1	3	2	.....	1	2	.....	1	.....	.....	2	1	.....
'33	1	.....	.....	14	1	5	.....	.....	2	.....	.....	1	1	.....	2	2	1	1	.....	.....	1	.....	.....	3	.....
Before '33	5	14	14	397	43	68	10	1	6	11	7	45	49	30	25	40	2	29	22	32	12	43	4	40	15
Unid.*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	1	.....	.....	.....	.....	.....	1	1	25	.....	.....	.....	.....	.....
Total	13	27	45	568	59	90	21	4	23	96	9	265	56	37	38	120	42	68	42	134	122	63	44	49	16
CHEVROLET																									
6 Mo. '46	1903	131	1439	2535	431	625	230	213	1147	1839	549	3213	1184	1663	1475	1424	1274	588	901	1029	1879	1162	1400	1478	336
'45	1098	240	1023	2655	302	351	39	14	863	1227	240	1706	849	978	1082	1069	765	383	153	571	1169	486	850	1659	337
'44	807	111	531	1233	305	136	15	8	352	544	163	786	88	546	514	451	302	292	58	235	548	340	455	626	101
'43	35	88	22	231	11	5	.....	1	36	70	14	30	8	15	25	42	44	12	8	10	24	3	37	21	31
'42	3288	590	2501	4339	1580	608	294	187	2524	3083	875	3176	2074	1921	2108	1739	2201	902	1148	948	2549	1662	2466	1958	989
'41	4873	1201	4405	12909	2654	2355	739	717	4326	5602	1601	9595	5004	4771	5926	4050	3769	1989	2892	3474	5803	4125	4104	7376	2027
'40	3658	958	3204	9531	2288	1998	631	496	2994	3881	1417	8809	4476	4261	4018	3609	3215	1697	2472	3388	4359	3702	3541	6507	1827
'39	2873	801	2634	7333	2091	1645	465	390	2577	3099	1057	6686	3952	2675	3269	2924	2487	1330	1820	2760	3280	2678	2489	5215	1248
'38	1630	594	1703	5785	1463	1010	323	193	1710	1712	757	4304	2525	2437	3483	2041	1419	988	1210	1803	1987	2322	1706	3527	948
'37	2818	1179	2688	9283	2542	2106	612	295	2458	2943	1353	6767	4011	3508	4369	3075	2500	1632	2396	3138	4512	3793	2723	5677	1315
'36	2350	935	2430	8825	2750	2012	494	207	2276	2840	1479	6474	4497	3584	4665	2614	2341	1489	1945	2829	3872	3820	2145	5930	1490
'35	1340	691	1428	6589	1496	1290	250	96	1199	1910	1048	3410	3715	2460	2945	1503	1302	971	979	1518	2411	2893	1193	3418	1127
'34	871	492	1134	5659	1501	1203	255	68	1347	1080	959	2813	1968	1912	2681	1055	899	715	999	1241	1586	2554	842	2753	1027
'33	484	245	800	3619	753	777	137	31	689	854	332	1234	1160	845	1350	616	507	442	536	641	748	1340	479	1510	390
Before '33	1432	816	3018	13443	3112	2757	378	41	2997	3158	1259	4332	4883	3794	8091	1818	2118	1412	1478	1241	2492	6331	1588	5354	1982
Unid.*	130	13	91	14	23	7	33	289	366	315	27	332	50	48	269	45	620	12	178	25	6375	62	267	470	44
Total	29590	9085	29051	93983	23302	18885	4895	3246	27861	34157	13130	63667	40444	36418	46270	28075	25763	14854	19173	24851	43594	37273	26285	53479	18219
DIAMOND T																									
6 Mo. '46	20	7	21	97	27	39	2	6	39	35	13	270	59	91	58	37	36	1	19	39	59	47	20	53	9
'45	37	5	21	124	38	56	3	4	49	20	21	335	111	106	82	81	41	4	34	104	83	71	21	88	27
'44	24	2	18	54	26	16	3	1	22	10	10	176	57	66	45	22	37	5	28	58	64	29	15	43	15
'43	.....	1	.....	17	.....	.....	.....	.....	1	1	1	7	1	.....	.....	4	9	.....	1	2	1	2	.....	1	.....
'42	10	5	17	52	14	20	2	3	28	6	15	89	33	68	42	21	73	4	23	54	31	31	23	21	7
'41	37	10	19	413	67	131	4	17	112	50	32	820	169	167	154	58	142	11	70	280	146	103	34	178	55
'40	46	7	23	227	71	128	3	3	109	37	34	927	124	230	120	80	109	11	44	215	129	145	31	193	43
'39	17	2	20	158	81	77	6	4	37	15	27	635	126	176	100	60	88	13	72	214	69	130	15	133	36
'38	4	6	33	145	73	68	4	4	38	14	35	471	74	120	147	59	30	19	61	140	60	121	7	117	27
'37	10	13	48	257	182	149	7	11	64	32	49	760	210	198	236	102	64	22	85	213	94	213	11	233	58
'36	6	7	13	301	145	113	4	11	40	23	47	766	187	175	170	61	35	11	75	157	55	231	12	212	77
'35	2	4	5	159	91	100	1	11	39	9	33	441	183	132	134	59	23	10	25	154	38	170	4	109	36
'34	1	2	4	74	53	59	1	4	18	5	12	387	100	94	89	37	15	14	20	93	20	121	1	117	30
'33	.....	2	1	32	34	32	1	.....	11	2	3	322	76	60	42	34	12	8	18	49	4	73	.....	92	11
Before '33	.....	.....	8	101	16	73	2	17	19	5	3	903	99	56	61	49	10	21	28	80	28	128	1	205	9
Unid.*	.....	.....	1	1	3	.....	.....	.....	11	7	1	43	1	18	7	7	20	.....	1	3	220	2	3	17	.....
Total	214	73	252	2212	921	1061	43	96	637	271	336	7352	1610	1757	1487	771	744	154	604	1855	1101	1617	198	1812	529

Source of data—R. L. Polk & Co.

Unid.*—Unidentified as to year of manufacture.

BY STATES AND YEAR OF MANUFACTURE

As of July 1, 1946

Model		Neb.	Nev.	N. H.	N. J.	N. M.	N. Y.	N. C.	N. D.	Ohio	Okla.	Ore.	Pa.	R. I.	S. C.	S. D.	Tenn.	Tex.	Utah	Vt.	Va.	Wash.	W.Va.	Wis.	Wyo.	Total
AUTOCAR	6 Mo. '46		4	10	155		165	42		73	2	8	179	56	5		5		3	1	41	11	10	7	1	1412
	'45			5	206		375	44		132	18	28	257	50	12	1		3		2	39	14	10	47	1	2175
	'44		1	1	121		141	27		79	9	5	225	31	1	2		4			20	1	6	3		1175
	'43				8		10			1			31	1										3		67
	'42			3	61		42	1		29		1	245	12	2		1	1	1	1	3	3	1	4		617
	'41		1	8	310		392	31		130	6	2	402	77	3		3	1		2	35	5	16	13	1	2511
	'40	1	4	8	154	2	306	23	2	134	1	3	199	38	3		1	1			28	2	10	6	2	1575
	'39		1	5	204		393	11		89	1	1	359	33	2		1	1	1	2	25	3	8	9		1758
	'38	1		3	151		257	6		53	1	4	285	36	2			1		1	14		6	3		1316
	'37			6	242		429	4		102	2	1	292	35						2	16		7	18		1725
	'36			1	189		318	2		45		1	169	14					1	1	6		2	18	1	1156
	'35				82		210			21			87	15					1	4	5			1		864
	'34	1		4	75		257	1		33	3		191	14				1		2	4		14	5		867
	'33			1	74		189	1		25	2		151	11				1		3			1	1		664
	Before '33	3	3	1	198	1	591	6	5	39	11	5	465	35	1	3			3	1	19	13	5	15		2373
	Unid.*				11		17			2		4	2				1				1					126
	Total	6	14	56	2221	3	4094	199	7	987	56	63	3539	458	31	6	12	14	10	22	256	52	98	149	6	20203
BROCKWAY	6 Mo. '46			2	180		379	2		18		1	224	1	1		1	1		5	23		1			1109
	'45	1		4	287		866			25			311		1		2			8	23		15			2053
	'44				178		404	2		6			336							3	7		11			1167
	'43				8		8						30											1		57
	'42		1		30		115			1			231	2	1		1			1	8		2	1		472
	'41		10	10	324		1213	1		8			339	4	1		2			11	34		1			2420
	'40			4	176		823	1		7			187							13	31		4			1489
	'39			6	169		874	4		7			346	2						10	23	2	3			1736
	'38			4	145		753	2		1			234	1						11	32					1389
	'37			1	163		860			2	1		276	2						6	18		1			1578
	'36			2	163		867			2			236							4	4					1477
	'35			5	74		484			1			87	1						1	4	1	2			773
	'34			6	70		401			1			73	2						1	2		1			644
	'33			3	22		186	1					32							3	1					297
	Before '33			1	154		862			2			165	1		1	2	2		7	11		1	3		1441
	Unid.*				15		23						4													74
	Total	1	11	48	2158		9118	13		81	1	1	3111	16	4	1	8	3		84	221	3	42	5		18156
BUICK	6 Mo. '46				2		37	2		1	2		1				5	5	1		2			2		131
	'45						3	1					1			1	3	2								45
	'44				1		3			1	1		4			1	2	3			1				1	40
	'43				2						1		1													11
	'42	1	3	1	40		45	8		9	13	1	14	5	4		16	15	10	1	12	8	3	10	1	390
	'41	7	3	3	122	1	145	15		5	36	4	23	6	19	1	16	26	14	5	16	7	3	5		87
	'40	4		1	97	1	118	11	3	1	38	5	24	5	14	4	12	26	5	6	17	12	3	7		739
	'39	4	1		74		76	11	1	3	28	4	29	5	8	2	12	20	1	4	12	9	8	1	1	585
	'38	3		1	79		71	8	4	1	21	3	29	1	7	1	8	32	5	3	22	7	8	3		558
	'37	7	5	1	112		87	5	4	4	27	10	22	7	18	1	5	27	2	6	13	14	2	9		687
	'36	6		4	75	1	79	2	5	8	12	5	19	1	17	2	7	33	2	1	12	8	4	8		592
	'35			1	43	1	43	3	5	3	17	4	10	5	7	3	7	23	1	2	9	4	3	4		377
	'34	7		2	48		41	10	2	8	16	3	17	5	7	2	2	42	3	4	8	10	4	18	2	509
	'33	5		2	37		48	6	4	4	15	6	15	4	15	3	5	33	3	7	7	6	3	14	1	441
	Before '33	393	23	72	254	6	441	56	121	159	306	192	180	40	41	206	96	437	23	69	85	493	51	1163	45	10348
	Unid.*	2			4		8		1	1	3	1	4		2	2		7	2	2		2		3		156
	Total	439	35	88	990	10	1245	138	150	208	536	238	393	84	164	229	196	731	72	110	216	580	92	1247	51	16416
CADILLAC	6 Mo. '46				1		11					1				1		1				1		1	1	51
	'45						1					2										1				6
	'44												1													5
	'43																									2
	'42				9		29	3			2	1	9	2	12		3	9			4		3			184
	'41				41	2	106	17		2	2	4	29	5	20	2	7	19	2	6	33	4	13	4		671
	'40	1			12	1	57	4			1	3	11	4	3		1	3	2		4	3		2		228
	'39	1			11		35	2			2		13	2	2	1	2	1			6			1	1	183
	'38				15		24	3			4		6	1	1		1	1				1	3			129
	'37	1			25	1	44	3	1	1	2	4	12	3			1	5	1		8	3	2	4		206
	'36	2			23		27	1		1	2		13	3	2		3	4			1	4		4		175
	'35	2			16		9			2	7	4		2			2	3	2		2	3		4	1	97
	'34	5	1		9		11				5		5					2				2				73
	'33				13		10	1		3		1	3				1	4			1	3		1		76
	Before '33	17	6	4	156	2	200	7	11	32	43	24	56	12	9	13	6	39	7	13	13	39	8	38	2	1721
	Unid.*				4		1	1							1		1		2					4		45
	Total	29	7	4	335	6	565	42	12	41	70	44	158	34	50	17	28	91	16	19	72	64	29	63	5	3852
CHEVROLET	6 Mo. '46	578	91	294	1357	477	2172	2151	101	2324	1074	741	3670	195	715	369	1758	4896	430	123	1209	848	359	1159	266	57407
	'45	222	54	170	704	166	1823	1046	211	342	1246	418	182	154	675	159	798	1541	140	145	1399	480	307	868	130	33489
	'44	140	23	58	303	126	857	687	138	60	656	306	124	50	498	132	470	784	93	72	760	334	258	543	98	17117
	'43	9	1	2	12	3	33	12	38	104	51	47	27		5	2	25	47	5	5	13	27	38	5	5	1339
	'42	1549	190	109	1403	733	3273	3505	790	4147	1532	1555	5171	166	1683	547	2615	10568	486	191	2548	1859	1341	2053	510	94234
	'41	2519	344	812	5112	1268	11516	6734	1721	8497	5391	3083	18092	765	3603	1168	5157	15224	1012	653	5638	4295	3111	5389	826	211017
	'40	1915	336	799	4716	1060	10340	4634	1586	7131	3971	2212	9050	702	2552	1105	3706	11886	881	568	4076	2871	2985	4624	742	171385
	'39	1833	223	877	3615	1003	7962	3916	1159	5202	3793	1676	6558	641	1964	896	2813	10807	843	425	3511	2377	2299	3607	585	137361
	'38	1439	150	487	2756	706	5912	2989	986	3393	2675	1076	4349	366	1224	662	1887	6876	518	326	2446	1726	1550	2492	397	94968
	'37	1777	292	782	4642	1190	9667	3850	1395	7214	4302	2573	8875	676	1979	888	2746	11743	905	504	3785	3481	2863	5032	622	159478
	'36	2235	237	729	3672	942	8152	3056	1259	6062	4144	2493	7289	649	1605	1087	2414	9761	991	494	3384	3483	2485	4577	674	146167
	'35	1373	172	476	2109	538	4886	1868	1328	3288	2691	1549	3556	440	1069	926	1631	5067	644	369	1743	2108	1113	3116	430	89672
	'34	1460	134	425	1997	421	4169	1846	1169	3165	2106	1406	3785	290	800	828	820	4258	561	216	1524	2079	948	2650	378	75049
	'33	655	42	228	1188	114	2395	820	505	1410	1041	750	2001	178	400	325	519	2209	213	107	755	1110	452	1193	153	39282
	Before '33	5201	261	793	3206	378	7269	1653	3997	5062	3284	2816	5208	397	1091	2644	2084	8784	526	351	2013	4318	1028	8164	589	150442
	Unid.*	24	17	6	167	11	166	14	4	41	121	47	299	5	16	19	299	222	3	3	50	16	8	24	1	1168 8
	Total	22929	2567	7047	36959	9136	80592	38781	16387	57442	38078	22748	71036	5674	19879	11757	29742	104673	8251	4552	34854	31412	21145	45496	6406	1490093
DIAMOND T	6 Mo. '46	43	1	1	85	13	213	28	1	94	10	63	165	7	10	24	31	97	3	3	33	64	8	80	13	2194
	'45	75	1	1	109	12	291	15	24	150	16	72	302	18	19	35	26	149		2	52	67	34	147	21	3204
	'44	35		2	68	14	173	13	17	78	38	4	284	11	15	23	4	72	1	5	35	33	21	77	11	1880
	'43						2			1	2	7	37	1				2			4	4			3	112
	'42	26	7		40	4	153	20	3	65	13	31	268	2	6	5	21	92	2	7	19	53	19	23	5	1576
	'41	106	5	8	260	13	1037	47	9	321	31	35	550	41	11	30	32	231	11	21	86	130	73	248	19	6634
	'40	101	1	10	228	11	775	44	21	246	35	33	290	34	18	40	37	200	8	21	54	115	80	206	12	5709
	'39	55		6	185	16	626	21	13	166	27	37	688	43	6	35	19	127	6	15	40	61	39	184	10	4736
	'38	44	2	10	171	22	464	20	30	145	27	45	506	21	4	23	12	142	6	4	16	60	34	182	15	3882
	'37	77	19	8	318	35	853	20	42	253	57	74	575	38	4	46	61	230	17	12	19	96	115	348	34	6672
	'36	93	11	6	443	24	830	35	48	228	52	65	386	26	13	43	44	123	13	6	50	98	73	272	10	5926
	'35	104	1	7	176	7	572	23	49	155	27	66	146	17	5	32	19	81	11	12	17	76	58	175	13	3881
	'34	87		8	124	4	382	9	29	112	18	24	155	13	3	22	8	47	10	10	17	44	20	93	10	2640
	'33	46		9	76	1	302	8	8	49	10	4	170	7		15	1	22	3	4	12	27	5	102	1	1799
	Before '33	45	1	9	181	4	609	3	21	73	8	9	147	9	2	39	8	24	1	4	11	33	15	274	2	3454
	Unid.*	2			21	1	12	1		4	2	4	8		1		11	5				2	1	4		445
	Total	939	49	85	2485	181	7294	307	313	2140	373	573	4677	288	117	412	334	1644	92	126	465	983	595	2415	179	54744

Source of data—R. L. Polk & Co.

Unid.*—Unidentified as to year of manufacture.

TRUCKS IN USE BY MAKES, BY S

As of July 1, 1946

Model	Ala.	Ariz.	Ark.	Calif.	Colo.	Conn.	Del.	D. C.	Fla.	Ga.	Idaho	Ill.	Ind.	Iowa	Kan.	Ky.	La.	Me.	Md.	Mass.	Mich.	Minn.	Miss.	Mo.	Mont.
DIVCO																									
6 Mo. '46	19	.....	.....	93	5	32	2	18	32	12	9	88	38	18	11	9	15	21	12	155	70	21	.....	103	1
'45	6	6	.....	125	11	63	2	22	2	6	2	110	49	8	8	9	5	5	18	126	161	12	.....	62	.....
'44	.....	.....	.....	7	.....	4	1	.....	.....	2	.....	17	8	1	3	7	5	.....	7	26	14	2	.....	.....	.....
'43	.....	.....	.....	3	.....	.....	.....	.....	1	.....	2	.....	.....	.....	2	.....	.....	.....	1	3	1	1	.....	.....	.....
'42	5	3	.....	40	.....	5	5	22	12	1	.....	15	38	4	16	2	6	5	29	43	37	3	.....	8	1
'41	6	9	.....	145	12	122	7	26	7	3	2	158	46	9	6	22	8	28	45	377	230	.....	1	115	.....
'40	5	2	1	54	18	41	3	57	4	4	.....	107	49	11	5	10	7	9	24	126	97	17	.....	40	.....
'39	2	4	.....	58	1	78	4	58	4	1	.....	76	39	9	1	5	2	3	26	133	24	21	.....	49	.....
'38	2	7	.....	25	.....	28	3	51	1	10	.....	54	12	8	2	4	2	1	20	57	18	16	.....	35	.....
'37	2	9	.....	7	.....	48	2	35	18	2	.....	98	18	8	6	15	2	3	14	34	14	19	1	38	.....
'36	5	1	.....	42	1	16	2	64	1	2	.....	113	11	.....	.....	13	13	4	16	44	8	84	.....	21	1
'35	2	.....	.....	13	.....	6	1	8	.....	.....	.....	12	2	3	.....	4	1	1	8	11	13	55	.....	5	.....
'34	.....	.....	.....	8	.....	5	.....	9	.....	.....	2	40	1	1	.....	2	.....	1	3	10	10	7	.....	1	.....
'33	.....	.....	.....	4	.....	3	.....	.....	.....	.....	.....	18	3	.....	.....	4	.....	.....	1	12	1	14	.....	.....	.....
Before '33	.....	.....	.....	111	1	6	1	9	1	.....	.....	84	7	2	10	4	.....	1	6	29	5	7	.....	11	.....
Unid.*	.....	1	1	.....	7	.....	.....	.....	.....	.....	.....	2	1	.....	.....	2	5	.....	.....	.....	106	.....	.....	1	.....
Total	54	42	2	735	56	457	33	379	83	43	17	992	322	82	70	112	71	82	230	1186	809	279	2	488	3
DODGE																									
6 Mo. '46	1128	116	837	2967	388	599	105	138	1032	1182	335	2860	1039	1182	807	824	856	446	780	892	2174	1195	869	1162	286
'45	326	119	280	1460	182	257	11	61	431	449	115	1135	664	458	425	420	297	154	78	479	738	393	249	835	185
'44	144	39	138	527	67	90	24	17	142	167	50	369	224	175	143	137	130	75	182	126	247	147	97	190	51
'43	8	22	4	173	5	1	.....	.....	17	22	10	13	5	3	6	1	16	10	3	7	19	2	6	10	1
'42	925	253	888	2475	454	230	64	99	1048	1024	246	1039	762	582	576	530	830	339	483	614	1247	535	656	725	196
'41	2020	617	1217	6324	1119	1066	137	366	2480	2609	681	3241	1851	1264	1353	1279	1340	636	1019	2132	2810	1189	1308	1901	714
'40	1041	321	725	3817	609	700	107	246	1238	1470	412	2842	1550	988	872	1021	791	449	798	1640	1770	962	708	1477	370
'39	765	215	578	2739	630	665	100	220	779	956	288	2436	1529	928	722	797	565	419	754	1537	1451	816	424	1204	339
'38	410	133	340	2281	477	432	66	120	559	468	178	1425	816	632	652	625	395	301	489	871	854	545	230	800	233
'37	686	302	533	4720	886	686	120	180	827	943	310	2477	1938	864	882	1100	566	381	899	1241	1785	1010	455	1251	382
'36	736	510	694	5957	1296	992	142	168	1137	962	638	3188	2510	1287	1402	1297	643	549	1067	1512	2238	1467	454	1836	642
'35	239	252	314	3864	588	682	60	83	510	383	425	1388	1645	696	688	690	241	235	450	828	919	976	160	828	465
'34	210	127	226	2122	322	443	59	35	349	250	286	857	816	413	461	387	187	264	443	632	684	468	96	618	255
'33	53	47	69	1060	172	240	20	15	139	83	118	397	380	189	217	178	37	111	149	217	208	242	30	357	106
Before '33	125	137	307	4129	584	804	34	8	247	194	188	613	774	351	813	318	183	264	253	291	604	665	103	785	315
Unid.*	42	3	41	10	12	3	8	118	155	97	10	168	20	17	66	21	144	6	57	18	3368	24	69	152	5
Total	8858	3213	7191	44625	7791	7890	1057	1874	11090	11259	4290	24448	16523	10029	10085	9625	7221	4639	7904	13037	21116	10636	5914	14131	4465
FEDERAL																									
6 Mo. '46	14	2	18	65	2	52	1	2	30	21	15	96	25	38	22	30	32	11	29	33	83	39	16	52	2
'45	18	13	30	68	6	53	2	6	10	24	19	86	73	33	19	49	12	13	55	35	99	88	15	61	1
'44	5	1	3	22	12	10	.....	2	8	10	3	33	20	5	2	7	6	10	13	25	35	42	9	7	5
'43	2	1	.....	27	.....	.....	.....	.....	7	5	1	2	2	.....	.....	1	4	.....	1	.....	.....	.....	4	1	.....
'42	5	.....	5	22	30	25	.....	2	13	19	1	20	11	3	12	16	19	1	16	25	53	34	9	14	.....
'41	3	.....	5	56	2	52	2	19	23	11	2	117	29	8	1	22	16	6	36	69	95	40	5	21	4
'40	1	1	6	54	5	64	.....	10	68	12	1	114	32	4	2	20	8	6	24	70	74	28	.....	33	4
'39	1	3	1	71	1	51	1	6	22	11	2	89	28	8	7	17	3	9	32	76	80	30	1	17	.....
'38	.....	1	.....	49	5	46	.....	6	18	15	1	76	14	9	2	22	3	7	21	56	56	29	.....	34	9
'37	2	.....	6	76	10	68	1	4	27	14	2	146	26	11	5	28	2	5	30	92	115	47	4	66	11
'36	2	1	5	114	16	69	2	3	18	28	2	151	28	12	16	19	4	2	32	76	118	39	2	72	13
'35	3	.....	.....	79	5	64	.....	1	13	3	1	82	10	7	5	24	1	2	19	45	83	21	1	56	20
'34	.....	.....	4	77	6	45	.....	2	9	6	3	54	18	1	5	8	.....	2	9	48	60	28	1	49	2
'33	1	.....	1	23	1	28	.....	1	4	3	1	37	6	1	3	8	.....	.....	5	17	16	19	.....	28	.....
Before '33	1	2	2	233	10	131	2	2	9	5	10	75	18	20	8	33	5	7	36	70	85	42	3	112	7
Unid.*	.....	.....	2	1	.....	1	.....	1	4	.....	.....	5	.....	1	1	6	5	1	1	1	411	2	1	5	.....
Total	58	25	88	1037	111	759	11	67	283	187	64	1183	340	161	110	310	120	82	359	738	1463	528	71	628	78
FORD																									
6 Mo. '46	1710	180	1965	3515	585	452	164	127	1749	2504	452	2827	918	1432	1143	1125	1587	472	660	912	2853	981	1560	1550	289
'45	881	222	1036	2745	452	441	71	180	1138	1642	235	1983	1680	1159	857	1038	1153	486	283	908	1996	1108	946	1349	254
'44	397	86	420	804	287	162	51	36	496	892	123	853	462	467	425	436	562	290	212	439	633	492	647	409	139
'43	85	50	35	411	13	35	8	1	74	164	20	88	19	36	89	35	56	10	32	48	58	6	28	59	11
'42	2383	365	2104	2796	989	473	134	258	2810	3405	400	2295	1216	1287	1276	1158	2773	822	532	1259	2117	1346	2778	1171	563
'41	3985	1033	4598	10515	2085	1837	462	566	5143	6015	1168	7578	3977	4121	4260	3255	4302	1812	1835	3939	7194	4042	3841	5110	1437
'40	2778	599	3224	7072	1725	1435	358	452	3592	3871	960	6465	3335	3420	2865	2237	3316	1460	1434	3041	4762	3170	3255	4166	1133
'39	1927	511	2444	5387	1588	1054	239	356	2525	2790	784	4640	2772	2893	2152	1849	2396	1148	961	2494	3272	2344	1935	2922	904
'38	1199	461	1468	4492	1282	881	205	225	2099	1796	640	3594	1815	2107	2476	1371	1736	935	818	1781	2203	2255	1427	2142	976
'37	2395	746	3081	8973	2446	1849	407	348	3439	3450	1137	6408	4162	3257	4065	2772	2734	1771	1619	3570	5431	3949	2492	4375	1260
'36	1900	686	2393	9112	2590	2001	422	329	3175	3095	1210	6163	4032	3074	3528	2313	2449	1449	1680	3590	5265	3693	1841	3941	1412
'35	992	704	1429	9332	1880	1591	294	223	2095	1723	957	4278	3914	2592	2889	1513	1138	1090	1182	2736	3469	3199	974	2992	1206
'34	713	464	1012	6389	1285	1406	251	126	1833	1331	715	2549	1808	1470	2035	1078	934	1060	1007	2169	2717	1959	721	1903	867
'33	162	177	248	3390	491	577	51	47	594	309	263	959	643	576	671	448	189	314	207	684	610	955	177	676	394
Before '33	2921	2262	6259	39526	6468	6649	786	323	10383	7872	2378	8797	10086	7356	12396	4813	5663	3638	3141	4898	8678	12527	3618	11040	3345
Unid.*	125	8	146	19	20	9	31	488	639	478	14	342	65	32	145	42	679	13	124	45	10342	144	230	392	24
Total	24553	8554	31862	114478	24186	20852	3934	4085	41784	41337	11456	59819	40904	35279	41272	25483	31667	16770	15727	32513	61598	42170	26470	44197	14225
G. M. C.																									
6 Mo. '46	127	3	109	458	31	69	25	19	180	145	90	311	147	142	85	89	55	26	86	120	204	120	77	159	27
'45	232	96	170	1127	149	183	66	25	322	190	79	577	350	301	212	250	104	98	228	238	570	193	159	389	93
'44	160	52	116	513	78	61	36	17	114	107	41	451	254	99	101	106	51	91	119	208	348	156	101	224	54
'43	28	22	10	172	16	4	7	.....	19	26	8	17	15	11	11	28	17	5	28	33	23	9	22	31	3
'42	699	116	567	1424	430	183	82	58	680	554	218	680	581	431	381	422	376	235	280	367	497	447	602	361	164
'41	992	230	760	4280	592	794	164	263	756	964	331	2198	1300	659	896	814	572	324	562	1344	1473	786	766	1420	337
'40	524	148	563	3241	467	629	106	204	504	724	243	1888	1119	501	629	669	413	233	371	946	1031	752	566	1059	253
'39	286	113	364	2618	358	423	130	162	356	502	178	1205	877	331	524	422	315	174	447	848	593	509	315	922	189
'38	178	78	169	1693	200	259	76	106	244	305	101	623	348	182	434	305	254	126	262	427	319	245	236	433	114
'37	377	221	429	3302	696	713	115	147	480	441	290	1680	1143	431	1084	885	273	276	402	1096	944	624	384	1047	243
'36	95	79	154	1994	331	384	55	77	238	205	214	757	581	237	439	363	103	152	194	590	521	425	127	633	116
'35	26	25	23	843	70	165	17	15	70	59	30	271	159	36	73	93	30	34	58	233	197	85	26	134	39
'34	15	10	17	543	63	137	16	24	47	21	34	164	84	36	73	56	12	28	57	153	96	79	8	105	23
'33	3	7	3	315	26	64	8	10	4	12	7	102	49	16	33	22	7	5	29	84	51	21	2	68	10
Before '33	23	42	20	1022	133	318	27	16	42	22	48	281	230	94	249	93	43	46	96	265	163	190	26	252	77
Unid.*	22	4	20	3	3	6	4	45	68	104	7	116	20	14	25	25	98	3	22	23	1543	4	50	84	2
Total	3787	1246	3494	23548	3643	4392	934	1188	4124	4381	1919	11321	7257	3521	5249	4642	2723	1856	3241	6975	8573	4645	3467	7321	1715
INDIANA																									
6 Mo. '46	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	2	.....	3	.....	1	.....	4	.....	.....	2	.....	.....
'45	1	.....	.....	1	.....	.....	.....	1	1	5	.....	.....	.....	1	.....	3	.....	.....	.....	1	1	1	1	1	.....
'44	.....	.....	.....	1	.....	.....	.....	.....	.....	3	.....	1	1	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....
'43	.....	.....	.....	2	1	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....
'42	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	2	1	1	3	.....	.....	1	1	.....	.....	.....	.....	.....
'41	2	.....	.....	.....	.....	.....	.....	.....	1	5	.....	6	3	.....	.....	6	.....	.....	4	2	4	.....	.....	.....	1
'40	1	.....	.....	4	1	1	.....	.....	2	11	1	5	3	.....	.....	10	1	.....	1	12	3	.....	3	1	.....
'39	.....	.....	.....	13	1	4	1	.....	3	4	.....	10	5	1	1	13	.....	.....	7	11	.....	1	3	6	1
'38	3	.....	1	22	2	12	1	1	2	16	1	9	7	2	1	6	1	.....	5	16	2	5	1	7	.....
'37	1	1	.....	53	3	39	1	5	17	17	1	27	12	6	2	16	7	.....	14	31	1	6	1	19	2
'36	1	1	2	114	5	9	1	2	9	20	2	76	13	5	10	37	2	4	12	23	2	12	.....	27	2
'35	1	3	.....	53	7	7	1	.....	7	9	3	22	31	6	.....	8	.....	2	6	15	1	9	.....	7	2
'34	.....	.....	.....	29	1	2	3	.....	5	5	7	6	11	2	4	4	.....	.....	16	5	2	2	.....	2	4
'33	.....	.....	.....	29	.....	13	.....	.....	2	2	2	12	1	2	.....	3	.....	1	3	7	3	1	.....	3	1
Before '33	2	.....	.....	34	4	5	.....	.....	16	13	1	62	157	9	4	14	1	.....	3	6	2	5	2	31	3
Unid.*	.....	.....	.....	.....	.....	.....	.....	.....	2	1	.....	2	.....	1	.....	.....	11	.....	.....	.....	9	.....	1	3	1
Total	14	5	3	355	25	92	8	9	68	115	18	239	246	38	23	133	23	8	73	134	30	42	14	107	17

Source of data—R. L. Polk & Co.

Unid.*—Unidentified as to year of manufacture.

BY STATES AND YEAR OF MANUFACTURE

As of July 1, 1946

Model		Neb.	Nev.	N. H.	N. J.	N. M.	N. Y.	N. C.	N. D.	Ohio	Okla.	Ore.	Pa.	R. I.	S. C.	S. D.	Tenn.	Tex.	Utah	Vt.	Va.	Wash.	W.Va.	Wis.	Wyo.	Total
DIVCO	6 Mo.' 46	1		6	107		65	17		76	23	19	47	21	2	6	14	27	13	2	32	25	7	38	3	1335
	'45	1		7	132		117	9	1	130	11	11	68	23	1	4	5	54	7	4	33	25	15	38	3	1517
	'44	1			14		7	2		10	2	7	71	2			1				15		3			239
	'43				14								6	3												37
	'42	3		2	32		31	7		32	7	4	279	15	2	2		3			19	4	6	24		772
	'41	11		5	209		216	36		206	12	13	333	51	10	3	17	25			61	44	27	32		2695
	'40	9		3	175		342	30		99	2	8	84	65	8	3	12	16	1	2	30	14	22	32		1648
	'39	3		4	104	1	260	18		123	6	3	169	30	3	2	11	46	7		18	28	10	34		1477
	'38	3		2	43		401	27	1	70			145	10	5		8	13	2		20	14	10	18		1148
	'37	5		1	61		253	24		56	9		103	13	4	1	5	27	6		18	10	11	25		1025
	'36			1	105		84	12	1	64			39	1		3	6	19			16		8	13		834
	'35				50		32	2		16			22	14		5	7	4			11	1	4	8		321
	'34				25		30	4		15			8	4			2				1		8	5	1	203
	'33				17		18	2		2			5	4			5				1	20	2	11		147
	Before '33				57		61		1	24	1		24	4			2	2				2	5	28		506
	Unid.*				1		2				1		9				1									140
	Total	37		31	1146	1	1919	190	4	923	74	65	1412	260	35	29	96	236	36	8	275	187	138	306	7	14044
DODGE	6 Mo. '46	385	131	219	1288	308	2368	1290	55	2186	758	691	4144	161	522	295	1219	3132	284	138	901	804	358	935	155	46896
	'45	225	30	96	467	92	1268	470	166	1037	685	290	74	95	313	201	323	1591	63	79	568	288	229	442	76	19347
	'44	83	13	15	135	42	450	193	58	324	201	87	1148	31	107	61	121	556	19	37	206	129	131	189	37	8071
	'43	2	8	3	3	5	17	2	11	3	12	5	10	2	2	1	6	22	3	2	5	12	4	2	2	508
	'42	242	64	67	800	200	2151	1245	259	1564	873	702	2495	69	784	223	967	3506	221	88	1079	1037	535	596	179	36766
	'41	493	139	290	2217	420	5136	2587	451	3901	1759	1445	4678	314	1422	356	1659	6149	380	290	2357	1979	1230	1520	323	82188
	'40	315	94	292	1528	249	3829	1977	382	3053	1115	878	3890	237	718	305	1055	3177	269	253	1372	1145	951	1369	173	55550
	'39	363	62	285	1461	245	3995	1234	292	2589	706	492	3640	273	524	251	792	2217	255	196	975	945	777	1088	192	45705
	'38	279	41	169	1206	164	3463	630	196	1623	592	315	2133	134	281	190	569	1714	102	118	664	592	557	761	113	30938
	'37	354	101	265	1767	259	3935	961	340	3161	951	861	4456	263	504	275	927	2380	269	208	880	1121	807	1494	227	52160
	'36	700	152	324	2327	287	5322	1300	402	3886	1214	1399	5057	356	497	401	1181	2709	503	236	1175	1998	1278	2126	279	68433
	'35	394	67	172	987	140	2738	735	306	1856	634	672	2124	189	229	284	453	1065	294	135	577	1115	587	1163	159	34684
	'34	225	46	144	782	95	1975	456	187	1241	392	443	2376	144	187	146	299	715	170	101	382	780	428	597	111	23432
	'33	119	11	44	348	20	832	131	123	536	176	209	754		69	78	69	228	60	17	180	345	154	301	35	9727
	Before '33	548	103	90	679	42	1380	140	231	747	352	597	1158	141	96	268	264	651	108	73	179	998	185	949	95	23161
	Unid.*	10	5	3	87	1	87	3	1	16	41	26	214	1	8	4	148	98	4	1	13	2	1	17	6	5431
	Total	4737	1067	2478	16082	2569	38946	13354	3460	27723	10461	9112	38351	2464	6263	3339	10052	29910	3004	1972	11513	13286	8212	13549	2162	542977
FEDERAL	6 Mo. '46	12	1	6	75	5	122	38		126	21	44	118	3	10	1	61	47	5	8	28	12	25	23	2	1523
	'45	13	5	11	139		246	49		226	56	121	180	2	9	2	29	61	6	2	64	20	39	42	2	2212
	'44	3	1	3	42	1	79	26	3	88	10	54	65	2	6	3	26	17	4		25	12	6	24		795
	'43	3		2	2		1	3		3		9	9		6		8	15			5	16				140
	'42	6		1	48	1	70	9		57	20	57	61	2	15	1	21	18	1	1	25	20	18	6	1	814
	'41			4	117	3	166	13	5	119	14	130	110	7	11		63	20	3	1	46	26	16	14	2	1534
	'40	1		4	98		226	8	1	102	6	42	54	19	5		29	4	1	4	18	3	14	9		1289
	'39	1		3	80	1	143	14		91	11	34	116	14	10		58	7	3	2	18	10	15	20		1218
	'38	4		2	76	2	104	11	3	115	4	35	71	14	4		32	6	1	2	15	11	12	16		1019
	'37	8	1	3	94		147	9	3	71	20	71	108	21	12		41	15		5	7	21	21	24		1500
	'36	5		4	105	1	195	8	4	92	14	74	107	32	3	2	46	21	6	2	11	24	34	41	1	1676
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FORD	6 Mo. '46	404	106	235	1379	344	2458	1509	104	1514	1106	876	3672	184	908	237	1723	5194	381	188	1459	1070	471	1432	237	58903
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	'44	270	11	92	422	82	791	650	98	537	508	183	1169	59	398	128	287	1533	82	91	655	266	272	540	93	19428
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	'42	802	154	128	1133	411	2722	2447	602	2157	1788	1012	2822	142	1584	378	1728	7740	350	175	1877	1495	777	1384	335	70873
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	'40	1769	205	781	3161	754	7980	3367	1274	6131	3650	1641	7346	672	2052	850	2722	11343	696	491	3270	2139	2115	3435	533	138502
	'39	1419	190	646	2320	576	6082	2589	969	4170	3075	1180	4765	572	1575	722	1953	8734	581	437	2546	1560	1519	2471	477	103415
	'38	1233	106	443	2323	446	5192	2036	1027	2945	2763	933	3752	384	986	619	1359	6973	452	288	1894	1219	944	2232	346	81279
	'37	1824	251	880	4030	840	9642	3727	1396	7419	4066	2227	7932	862	1894	890	2515	11347	827	627	3239	3078	2285	4431	581	152946
	'36	1966	243	776	4117	703	10012	2792	1215	6636	3693	2204	8336	694	1440	987	2172	9239	904	583	2776	3685	1943	4169	629	143257
	'35	1514	213	646	3234	465	7378	2212	1223	4703	2811	1656	5468	568	971	897	1306	5682	697	438	2161	2617	1247	3584	414	106497
	'34	1127	146	603	2435	313	5332	1349	832	3386	1843	1119	5066	473	742	521	806	4106	491	369	1456	1838	865	2054	368	75442
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	Before '33	8706	764	2290	8804	1095	19992	5270	4612	13284	7508	6362	14881	1665	3984	4205	4367	22690	1782	1110	4863	10632	3027	16598	1222	355536
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	Total	24237	2854	8728	40258	7250	92999	35604	15558	65054	39760	22839	76130	7498	20655	11999	26162	116433	8499	5761	32879	34705	18863	48280	6285	1584465
G. M. C.	6 Mo. '46	37	16	38	152	52	268	64	1	180	58	68	543	8	64	40	132	312	40	10	76	56	38	94	19	5270
	'45	135	12	31	1034	37	1225	136	40	574	293	276	856	53	194	97	230	764	53	31	265	322	296	258	48	13861
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	'41	437	101	93	1689	265	3573	761	346	2122	855	959	2830	258	448	248	1266	2698	253	166	728	1104	696	1183	187	46841
	'40	304	78	133	1317	207	3207	533	186	1619	573	816	1572	158	319	216	981	1817	192	117	549	927	625	835	120	35184
	'39	271	50	137	797	166	2217	389	137	1181	453	553	2812	139	202	139	636	1164	147	113	410	637	332	658	106	26978
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	'37	329	72	122	1075	211	3037	499	175	1757	820	679	2135	200	242	124	583	1537	222	144	549	1035	602	1033	140	35045
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INDIANA	6 Mo. '46						3				1							4								23
	'45					1	4					1	4			1		2			1			2		34
	'44				11	1	6					2	5					1			1					35
	'43						10				1		4													28
	'42						3						7					3								23
	'41	1			3	1	16						15		2	1		5			2					80
	'40	1			3	1	29			34	3	1	10	1	1		2	7			3		1			157
	'39			4	16	2	30			41		1	32	1	1		1	9			2	2	6	4		237
	'38	1			17		44	6	1	65		2	33	1	1		1	13		1	7	8				326
	'37	1	1	7	50		318	4	1	104	2	8	63	3	6	1	1	23	2	2	3	25	1	6	2	916
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	Unid.*				2								1				1				1			1		36
	Total	14	2	13	236	19	909	27	4	470	44	48	390	15	19	8	12	129	2	11	46	112	41	39	8	4457

Source of data—R. L. Polk & Co.

Unid.*—Unidentified as to year of manufacture.

TRUCKS IN USE BY MAKES,

As of July 1, 1946

Model		Ala.	Ariz.	Ark.	Calif.	Colo.	Conn.	Del.	D. C.	Fla.	Ga.	Idaho	Ill.	Ind.	Iowa	Kan.	Ky.	La.	Me.	Md.	Mass.	Mich.	Minn.	Miss.	Mo.	Mont.
International	6 Mo. '46	827	59	536	1540	237	358	55	121	513	753	224	2075	857	1008	667	738	556	262	272	582	789	993	512	642	[illegible]
	'45	374	109	310	1120	277	298	68	36	386	483	203	2000	1382	795	429	690	405	217	331	813	760	477	346	724	[illegible]
	'44	298	68	196	786	141	102	47	23	177	324	75	981	574	448	347	323	265	134	229	326	385	279	219	391	[illegible]
	'43	20	31	21	149	6	11	9	1	33	38	20	157	56	25	29	17	26	5	38	22	16	7	30	10	7
	'42	761	98	667	754	281	283	86	48	749	754	233	1221	669	710	523	554	620	286	419	312	454	725	664	344	237
	'41	1367	335	1115	4248	974	1407	219	320	1578	1867	699	6111	3378	2751	2346	1742	1575	602	1066	2123	1989	2212	1194	3048	1025
	'40	1055	278	947	3464	917	1193	140	212	1196	1476	595	4864	2576	2489	1783	1536	1332	430	682	1590	1725	2233	1065	2373	686
	'39	1012	236	950	2620	642	981	185	148	910	1261	469	4140	2315	1786	1223	1239	1235	322	897	1403	943	1741	985	1900	739
	'38	581	225	585	2519	547	837	153	155	813	724	386	3205	1674	1472	1646	1178	914	324	738	956	702	2875	753	1613	791
	'37	606	309	455	3235	990	877	166	139	954	647	648	3514	2140	1838	1692	1259	710	213	805	937	755	671	690	1870	699
	'36	733	294	671	2962	1093	984	112	89	866	933	727	3554	1968	1555	1583	1219	958	353	544	999	832	1462	885	1623	798
	'35	326	231	361	2107	599	686	64	65	471	449	425	1967	1383	994	950	716	460	182	310	482	573	1058	446	1084	782
	'34	122	104	125	887	187	359	45	33	285	160	168	819	511	492	391	266	203	114	213	321	214	504	146	478	345
	'33	37	44	58	513	117	258	26	17	110	70	83	585	322	319	297	190	102	65	129	148	112	332	56	379	259
	Before '33	97	66	123	1273	350	466	46	22	153	186	189	1604	921	1169	1783	369	287	139	229	379	408	1458	152	739	619
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	Total	8258	2492	7186	28181	7367	9101	1428	1506	9306	10223	5152	37008	20759	17888	15754	12073	9982	3654	6933	11409	12935	17047	8260	17404	7990
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	'42	51	1	5	108	12	77	10	3	332	112		113	40	23	6	44	68	27	77	166	40	58	35	9	1
	'41	67	5	9	458	30	469	25	56	380	174	4	352	137	37	22	111	60	92	216	686	59	188	20	85	3
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	'39	23	6	10	329	21	238	19	14	116	53	7	296	99	44	14	51	22	54	149	361	40	95	10	53	1
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PACKARD	6 Mo. '46	1		2	2						6		1						10	1		1	1		15	
	'45									1	2				2											
	'44										1				1									1		
	'43				1											1						1				
	'42		1	16	11		5	1	2	3	8		24	1		1	10	5	1	3	20	12	8	2	3	1
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	Total	43	63	161	898	140	167	49	17	91	185	25	344	159	66	113	174	82	111	147	257	302	213	113	125	42
PLYMOUTH	6 Mo. '46	107	3	39	21	6	2	1	1	4	21	7	12	9	2	8	2	3	44	5		320	4	3	234	9
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	'40	118	83	156	710	157	163	27	34	231	133	65	427	324	202	196	178	153	80	90	199	304	200	108	298	87
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PONTIAC	6 Mo '46	7		5	2	1	2	1		3	16	4	7			4		2	44		2	16	1	1		
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	Unid.*	1		1		1					3				1	2		4	1			33		1	4	
	Total	134	54	195	500	141	203	117	10	208	169	46	97	191	39	224	107	178	222	52	126	382	181	120	183	62
REO	6 Mo. '46	136	9	9	184	27	52	8	39	99	91	26	291	136	119	49	95	31	5	41	111	180	63	32	53	11
	'45	52	11	7	149	18	15	6	10	54	39	6	285	139	84	28	150	21	11	35	114	172	64	17	34	10
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	'42	3	1	2	56	7	2	5	2	49	5	9	49	27	8	10	11	20	11	26	32	21	15	1	16	3
	'41	2	4		208	13	28	5	2	28	5	5	149	83	22	18	38	8	2	38	136	91	45	1	56	1
	'40	3			18	6	5	2	3	5	3	1	46	5	4	5	11	6	2	8	17	21	7	1	20	1
	'39	3		2	93	14	17	3	1	38	7		91	14	12	20	6	3	4	14	37	31	17	2	49	1
	'38	2	6	4	272	42	48	8	3	57	15	10	174	67	48	65	57	11	6	46	120	123	48	2	112	6
	'37	4	14	13	318	80	124	8	4	108	9	20	190	78	45	73	68	6	15	44	155	161	68	2	69	6
	'36	5	9	14	205	48	105	5	2	91	17	17	125	65	30	30	32	15	27	23	153	120	68	6	40	17
	'35	8	9	16	295	50	119	5	1	77	10	26	91	98	30	43	26	6	14	23	147	82	60	7	62	42
	'34		1	3	210	14	79	5	4	50	6	8	79	38	23	28	21	4	11	33	141	70	49		19	16
	'33			2	115	11	50	3		16	3		43	14	10	12	12		6	11	40	20	24		17	6
	Before '33	8	10	44	1286	85	473	19	3	42	20	48	280	150	194	138	109	15	130	104	329	171	241	9	132	78
	Unid.*	2		1			3	1		10	8		18	5	11	5	6	2	1	2	13	336	4	1	7	
	Total	229	74	119	3455	419	1121	83	79	738	242	176	1917	933	642	525	647	155	249	458	1581	1616	787	81	687	197

Source of data—R. L. Polk & Co.

Unid*—Unidentified as to year of manufacture.

BY STATES AND YEAR OF MANUFACTURE

As of July 1, 1946

Model		Neb.	Nev.	N. H.	N. J.	N. M.	N. Y.	N. C.	N. D.	Ohio	Okla.	Ore.	Pa.	R. I.	S. C.	S. D.	Tenn.	Tex.	Utah	Vt.	Va.	Wash.	W.Va.	Wis.	Wyo.	Total
International	6 Mo. '46	286	50	124	729	150	1169	663	68	1388	514	355	1283	65	208	305	829	2026	181	114	472	454	158	652	127	27753
	'45	389	37	88	702	72	1596	388	165	1304	719	389	1854	134	144	250	426	1931	97	100	501	544	346	851	140	26412
	'44	382	12	45	265	62	691	229	77	575	464	312	1536	77	75	163	237	1062	50	54	211	253	243	465	63	14839
	'43	12	3	2	27	8	77	37	24	37	62	21	305	18	16	1	40	86	5	1	12	48	15	21	13	1675
	'42	366	98	17	439	107	1262	523	223	1174	509	496	2761	54	282	241	835	1545	106	54	345	758	365	683	96	25791
	'41	1488	155	292	2307	414	5828	1549	1324	4584	1865	1365	5601	372	604	937	1838	5322	417	289	1382	2010	1280	2535	437	39486
	'40	1148	113	223	1897	330	5372	1058	1132	3446	1316	1042	3263	323	586	763	1418	3953	337	305	1055	1652	1068	2287	440	71572
	'39	962	57	244	1520	301	4321	1005	750	2429	1011	678	5294	223	465	642	1393	2994	292	287	804	1293	767	1609	348	59962
	'38	837	67	147	1368	285	3758	769	822	2094	1137	587	4240	143	365	468	969	2756	300	188	649	1271	618	1309	255	51768
	'37	863	82	115	1736	308	3883	1273	682	2823	1431	820	4372	136	359	533	790	3364	374	141	741	1661	863	1682	317	56090
	'36	988	91	191	1401	263	3782	733	541	2700	1293	795	2769	188	390	420	1253	3174	371	191	632	1396	819	1565	317	54052
	'35	731	44	100	969	194	2436	424	556	1627	764	520	1418	88	186	445	607	1894	236	137	420	905	477	1179	211	33739
	'34	337	20	77	458	73	1382	179	264	739	272	194	1231	96	60	184	179	617	84	52	197	421	168	471	71	15318
	'33	212	8	59	335	33	957	100	192	377	176	115	701	45	21	101	95	334	59	22	102	275	129	333	68	9478
	Before '33	1069	15	55	613	45	1834	52	1947	930	538	286	1203	57	44	1054	215	782	73	92	167	662	169	868	143	28440
	Unid.*	11	5	2	73	6	70	2	3	47	49	36	112	2	4	12	210	180	4	2	10	4	3	21	5	4701
	Total	10081	857	1781	14839	2651	38418	8982	8770	26274	12120	8011	37943	2021	3809	6519	11334	32020	2986	2029	7700	13607	7486	16531	3051	569076
MACK	6 Mo. '46	23	1	28	206	16	369	157		90	14	57	231	3	54	11	66	58	2	15	47	19	24	12		3109
	'45	23	2	35	395	30	793	259	1	231	36	57	519	20	88	20	67	212	5	43	64	44	73	48	7	5114
	'44	6		28	229	4	357	185		129	38	52	426	27	145	1	41	146	4	11	51	26	60	24	13	3092
	'43	1		1	35		84	18		15	1		69		1		3	6			1	1	3	6	3	394
	'42	6		6	136	6	491	193		114	71	59	744	14	138		50	100	1	7	119	38	47	34	4	3796
	'41	22	9	75	886	3	2389	265	2	491	85	74	1424	120	115	6	104	199	11	27	177	158	98	95	2	10582
	'40	12	6	45	757	1	1857	152	3	379	47	87	896	76	51	3	48	147	11	31	76	153	54	120	2	7631
	'39	9	3	27	659	2	1778	96	3	307	29	65	1031	64	38	11	45	131	10	16	74	87	41	48	1	6700
	'38	3	5	32	491	2	1217	46	2	206	23	38	529	33	16	7	7	63	4	3	75	37	25	55		4327
	'37	17	3	22	558	5	1623	50	1	161	23	87	550	31	20	4	11	117	9	4	72	97	27	73	5	5356
	'36	21	2	21	447	1	1084	38		141	29	79	317	27	13	6	5	70	13	6	23	82	18	46	2	3728
	'35	7		7	185	2	702	4		35	13	7	81	23	2		3	16	1	6	9	13	2	14	1	1646
	'34	6		5	158		687	4	2	9	4	3	121	14	2		11	9	3	6	6	18	2	21		1510
	'33	2		3	136		483	3	1	18	2	3	92	10	3	1	1	8	3	9	6	6	1	21		1105
	Before '33	29	7	18	1538	8	6447	29	6	130	30	113	758	112	4	6	39	64	16	20	39	200	18	99	4	14415
	Unid.*			1	92		36			4		4	13		1		10	10	1	1	1	4		1		610
	Total	187	38	354	6907	80	20397	1499	21	2460	445	785	7801	574	691	76	511	1356	94	205	840	983	493	717	44	73115
PACKARD	6 Mo. '46				1		8	4			2						1	1			2					59
	'45						3						1									2		3		14
	'44						2						2				1									8
	'43				2						1		4													10
	'42				11		56	3		1		2	21	5	3		3	5	2	3	1	1	9			264
	'41			4	37		139	17		4	6	4	49	9	14	1	2	10	2	4	19	8	12	19	1	708
	'40	2			45		170	16	2	2	5	3	61	4	8	2	8	11	4	4	23	9	6	6		680
	'39	3		1	25		85	6		4	9	1	89	10	6	2	1	10	3	4	14	2	12	7		531
	'38		1	1	31		81	11	2	5	1	4	41	6	1		9	12		2	22	6	4	3		444
	'37	8		1	79		154	13	4	14	12	9	64	7	19	4	11	26	5	2	21	14	13	11		815
	'36	6			41		95	10	1	11	10	2	28	7	9	4	6	21	2		9	9	6	14		543
	'35	2		1	24	1	56	4		2	4	2	25	6	2	4	5	9	1		4	5	6	6		307
	'34	1		1	21		25	1		1	3	4	4	5	1		1	5	3		3	1	3	2		160
	'33	1			10		15	2	1	4	2	1	7		1			3	2		1	1	1	3		112
	Before '33	39	3	13	205	4	306	10	18	55	57	62	122	23	17	22	34	60	12	18	33	120	18	102	6	3046
	Unid.*				6		8				1	1	2				1		1	1						112
	Total	62	4	22	538	5	1203	97	28	103	113	95	520	82	81	39	83	173	37	38	152	178	90	176	7	7813
PLYMOUTH	6 Mo. '46	3		1	41	1	90	8		8	18	1	13	1	1	1	7	10	18	1	9	3	1	2	1	1106
	'45				1		1				1		5			1		2	2		2			3		57
	'44				1		5			1			34				1	1				1		1		78
	'43				1		1						25								1					52
	'42	6	2	3	117	1	270	23	6	21	54	2	267	11	2	1	98	20	39	2	45	13	7	14	1	1845
	'41	106	30	59	727	66	1600	294	100	524	246	113	1039	81	148	43	195	583	54	23	333	251	239	285	30	12159
	'40	85	35	65	536	59	1155	192	84	526	250	141	614	90	113	54	119	570	67	42	226	204	211	296	20	10477
	'39	91	17	54	448	51	898	174	68	403	191	112	1010	64	86	54	136	489	53	33	170	116	197	270	34	9153
	'38	83	13	21	351	53	619	135	41	298	160	70	809	24	58	39	97	436	31	21	127	113	194	229	22	6723
	'37	104	31	46	545	131	892	334	90	609	312	207	885	69	142	69	212	701	72	38	228	278	383	613	43	13056
	'36	57	8	15	310	17	314	72	19	160	115	51	330	27	33	32	72	245	18	10	68	115	86	177	9	4314
	'35	35	1	9	118	4	115	37	10	68	63	14	92	11	18	13	50	127	16	1	33	66	30	86	4	2053
	'34	27	4	16	102	7	115	28	4	68	65	16	79	27	16	6	39	139	7	6	39	45	36	66	7	2021
	'33	22	2	9	89	4	112	20	4	54	32	19	57	19	9	7	33	78	6	2	19	50	29	88	4	1628
	Before '33	82	6	46	94	3	184	24	16	115	58	69	114	16	25	42	45	165	13	22	32	194	36	218	15	3368
	Unid.*	3	1	1	15	2	12			4	11		17				12	8	1		1	1	1	1		609
	Total	704	150	345	3496	399	6383	1341	442	2859	1576	815	5390	440	651	362	1116	3574	397	201	1333	1450	1450	2349	190	68697
PONTIAC	6 Mo. '46	1		1	23		38	1		1	5						1	6					1	2		198
	'45							1			1								1		1	1				10
	'44			1			2						3											3		14
	'43										1		5													8
	'42	3		2	43		64	10		6	33	5	38	5	8	1	4	22	10	1	18	17	10	10		542
	'41	7		9	225		299	26		14	72	14	41	17	9	2	9	25	12	4	25	27	4	6		1243
	'40	4		16	204		296	18		7	48	16	22	10	13	6	7	15	12	4	30	26	5	2	1	1140
	'39			8	119	1	133	16		2	28	9	18	6	7	1	5	22	3	1	19	16	4	4		654
	'38			2	82		55	5		4	13	6	14	3	2	1	3	14	2	2	5	5	1	3	2	384
	'37	10		4	115	1	93	7	1	7	28	2	22	5	2	1	8	31	3	4	19	19	10	18	1	667
	'36	7		6	77	1	28	5	1	20	23	2	16	2	7	3	12	49	2	1	12	9	5	17		588
	'35	6		4	42		30	2	2	19	19	3	14	3	10	3	10	29	3	1	9	13	5	12		469
	'34	3		4	21		29	5	5	9	10	1	11	1	7		6	13	3	2	4	10	3	7	1	318
	'33	3	1	11	46		33	8	3	10	4	6	11	2	2	2	6	27	1	2	7	12	3	7		429
	Before '33	48		40	64	1	107	12	14	70	41	38	54	11	13	24	20	124	6	12	26	89	29	291	4	2365
	Unid.*	1			6		3				4	1					1	1								69
	Total	93	1	108	1067	4	1210	116	26	169	330	103	269	65	80	44	92	373	63	34	175	244	80	382	9	9078
REO	6 Mo. '46	19	1	39	59	9	174	92	7	196	33	44	288	10	49	20	56	114		17	47	27	33	66	13	3308
	'45	17	1	23	60	1	167	33	32	170	48	29	268	6	53	14	10	39	6	17	59	78	50	48	13	2771
	'44			1	8		5	2		12	3	22	65	1	8	1				2	5	9	10	4	1	321
	'43						1					2	26									1				53
	'42	6	1	15	33		54	6	1	42	9	123	238	7	1	1	3	8		1	11	89	32	29	7	1108
	'41	2	2	8	62	1	132	3	4	101	6	68	254	6	1	4	5	26	1	4	22	27	47	54	10	1838
	'40	1		3	4		21	2	1	6	7	5	82	4			2	5	1	4	10	19	6	16		399
	'39	10			43		118	11	3	40	7	10	114	4	1	5	6	8	1	1	2	4	23	16	4	910
	'38	31	3	7	103	3	269	15	5	167	43	36	328	19	8	13	16	32	1	11	24	48	66	86	9	2694
	'37	14	1	18	98	9	268	29	10	202	32	41	334	24	7	33	19	47	5	15	26	69	102	109	12	3206
	'36	23	12	22	75	6	199	3	9	136	16	40	177	39	6	18	9	36	4	10	14	48	48	67	7	2293
	'35	19	5	26	120	5	333	12	23	126	13	74	131	29	12	20	11	41	15	25	22	120	45	100	7	2681
	'34	4	2	15	95	8	198	5	12	89	5	11	218	30	1	10	2	11	5	13	11	42	45	47	2	1793
	'33	4		4	44	1	104	4	3	40	3	4	125	15		3		3	1	3	7	13	10	24		830
	Before '33	92	10	42	411	2	680	15	69	322	60	132	596	88	10	79	22	106	17	42	40	251	45	333	16	7598
	Unid.*			1	16		18	1		3	4	6	25	1		3	4	1			1	1		9		535
	Total	242	38	224	1231	45	2741	233	179	1652	287	647	3267	283	155	224	165	477	57	165	301	846	562	1008	101	32338

Source of data—R. L. Polk & Co.

Unid*—Unidentified as to year of manufacture.

TRUCKS IN USE BY MAKES,

As of July 1, 1946

Model	Ala.	Ariz.	Ark.	Calif.	Colo.	Conn.	Del.	D. C.	Fla.	Ga.	Idaho	Ill.	Ind.	Iowa	Kan.	Ky.	La.	Me.	Md.	Mass.	Mich.	Minn.	Miss.	Mo.	Mont.
STEWART																									
6 Mo. '46	1		1				1	1					1					2	2		1				
'45												1		1		1				1	1		1		
'44																			1						
'43																									
'42				1					1				2		1	6			1		1				
'41			1	1		1						2	1	3	2	3		4	1	1	8	2		1	1
'40	1			2							1	5	1			1		2		1	1				
'39	1					1		1			2	7	5		2	6			1	2				1	
'38			1	31		16						9	6		1	5	1		13	22	1	3			
'37			1	54	3	25			1	1	3	4	41	1	3	20	1	3	15	35	5	10		1	1
'36	1	1		19		25		1			2	10	52	1		9	1	1	14	33	5	9			
'35				32		18			1			4	17		1	2		2	4	32	1	1		7	
'34				12		5						1	15		1	7		1	3	10				2	
'33				4		6			1		1	3	20			2		1	3	4					
Before '33		2	2	41	1	85	1		1	1	4	25	61	5	16	15	2	1	26	39	2	1		1	
Unid.*	1							1					1	1							2	1		9	
Total	5	3	6	197	4	182	2	4	5	2	13	71	223	12	27	77	5	17	83	180	28	27	1	21	4
STUDEBAKER																									
6 Mo. '46	157	8	39	585	46	90	15	19	141	131	94	461	222	200	147	78	123	69	62	174	283	159	87	133	62
'45	15	15	18	170	21	31	6	4	23	80	38	206	126	79	39	46	32	20	23	59	47	95	17	60	23
'44	12	3	2	23	9	1	1	1	2	7	227	11	10	22	1	42	3		6	15	5	7	3	9	2
'43	9	1	7	14					10	4	2	12	22	3	1	10	24	10	3	11	4			5	1
'42	62	16	10	239	54	7	9	1	104	50	27	97	125	93	93	40	51	11	38	17	60	92	31	49	8
'41	66	30	54	476	67	87	7	20	92	85	86	271	350	100	128	93	61	41	35	98	180	100	41	180	102
'40	24	2	16	94	17	13	2	4	19	16	15	109	157	22	25	21	26	11	9	45	46	31	14	10	2
'39	7	14	7	304	36	25	5	1	32	19	37	73	115	48	19	26	17	16	18	85	44	36	8	17	3
'38	4	9	8	292	28	22	5	1	16	16	30	90	103	47	19	24	9	16	18	31	37	51	3	19	
'37	14	26	29	654	80	50	9	4	27	38	102	169	222	100	111	75	22	56	39	65	95	121	18	72	55
'36	9	14	8	236	29	27	4	4	13	19	20	185	137	42	32	24	9	24	20	50	34	67	3	55	20
'35	4	10	9	152	15	15	1	1	8	11	9	48	54	24	17	31	8	12	6	21	14	56	2	20	9
'34	5	4	19	124	16	16	1	1	12	12	5	22	56	9	9	15	7	16	4	27	14	34	4	9	14
'33	5	5	7	118	10	21	1		7	7	1	29	41	8	5	40	3	11	2	18	3	23	2	14	7
Before '33	19	40	58	872	150	204	6	1	23	46	49	111	244	80	149	73	19	83	32	80	53	233	15	120	79
Unid.*	2		2	3	1	1		6	9	7	3	23	2	3	9	4	12	3	1	2	142	1	2	9	3
Total	414	197	353	4356	579	610	72	68	538	548	745	1917	1986	880	804	642	426	399	316	798	1061	1106	250	709	654
WHITE																									
6 Mo. '46	74	10	19	220	24	86	5	22	71	106	5	217	104	33	54	37	41	11	65	136	51	55	34	73	17
'45	54	12	34	432	52	97	8	23	124	126	5	393	367	87	84	79	64	19	121	307	104	111	25	229	15
'44	31	12	10	221	32	31	5	10	33	75	2	201	161	46	40	36	36	15	73	228	51	58	11	97	15
'43	4		1	188	8	7	1	4	4	26	6	76	58	10	24	30	18	6	23	32	24	12	1	44	7
'42	79	14	38	288	75	26	6	10	130	161	7	187	100	50	46	56	91	22	82	128	23	45	69	159	23
'41	106	29	36	692	58	196	10	74	153	215	27	547	455	23	62	134	85	26	178	534	157	149	56	281	23
'40	49	16	30	494	31	129	7	47	75	94	5	326	183	18	19	89	41	6	95	286	68	82	19	157	9
'39	20	19	8	205	48	104	8	18	44	47	7	291	117	8	20	66	31	7	128	250	46	68	16	115	13
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Before '33	28	33	16	1125	166	112	11	22	110	125	19	472	69	21	47	53	65	22	174	394	92	298	14	181	82
Unid.*	2		2	1	1			5	11	13	1	31	2	1	3	4	81		7	7	351	1	8	12	3
Total	564	181	217	5230	636	1201	96	398	930	1234	119	3991	1936	335	489	844	701	181	1455	3222	1160	1231	300	1816	243
WILLYS-OV-WH																									
6 Mo. '46	222	45	106	2056	64	250	13	53	319	237	47	281	266	268	216	209	229	72	72	209	933	191	208	283	70
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'43	22		3	66	7	5		1	7	16	2			2	7	45	3		1	4			2	3	
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Before '33	7	13	30	175	70	61	3		50	24	16	83	116	64	127	29	7	32	16	15	23	125	5	106	35
Unid.*	4		3	1	1	1		7	10	7	1	7	2	1		2	15	1	1		191	3	9	8	1
Total	589	196	290	5388	273	513	33	110	1152	647	148	693	869	550	564	621	473	230	181	434	1493	462	366	658	199
YELLOW																									
6 Mo '46				1		1						1					1	2	1	5	4				
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'44				99		3			10	1						2	51	3	1	18	5			1	
'43				2								12				1				1		12			
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Before '33		15		70	14	50				2	3	34	2	11	7	2	1		81	38	1	12	1	75	1
Unid.*	1								3			1					80			3	53			2	
Total	48	39	3	1383	53	627	40	5	31	38	4	820	4	186	99	162	334	78	243	306	297	207	49	707	32
MISC.																									
6 Mo. '46	212	48	100	565	66	196	10	5	143	407	29	359	77	74	115	89	110	143	28	181	278	174	63	255	40
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Before '33	105	204	376	7447	861	1176	128	17	401	446	179	1992	839	567	867	404	257	548	288	1627	417	1028	103	1309	495
Unid.*	244	6	571	11	17	69	20	17	95	195	38	210	126	90	23	48	540	37	60	84	541	36	262	134	78
Total	1098	916	1766	16677	2087	2686	388	125	1805	4694	579	6333	1908	1888	2464	1686	2042	1510	856	5713	3248	2617	1025	4748	1175

Source of data—R. L. Polk & Co.

Unid.*—Unidentified as to year of manufacture.

BY STATES AND YEAR OF MANUFACTURE

As of July 1, 1946

Model		Neb.	Nev.	N. H.	N. J.	N. M.	N. Y.	N. C.	N. D.	Ohio	Okla.	Ore.	Pa.	R. I.	S. C.	S. D.	Tenn.	Tex.	Utah	Vt.	Va.	Wash.	W.Va.	Wis.	Wyo.	Total
STEWART	6 Mo. '46				2		9						2						1			9		2	2	37
	'45						5					1	1				1					2				16
	'44			1									3									1		2		8
	'43												2								1					3
	'42				1		5	1	4	1			7									8		4		44
	'41						13	2	1	3	1		7		1	2				1		11	1	3	1	78
	'40						11	3		1			4		1	1			1			4	1	2		45
	'39				1		26	1		3		1	17			1						7		4		89
	'38			2	32		148	1	1	15		1	101					2		3	1	6	1	5		430
	'37			5	52		314	1		32	1	1	124	1		3		3		6		16	2	9		797
	'36			6	42		340		2	33	1		128	3		1		1		4	1	7	1	14		775
	'35			3	20		180	1	2	15	2		51	1						1	2	4	1	6		406
	'34			3	21		140			10			39	1						1		2	3	7		282
	'33			1	2		118			7		1	51							1		2		7		236
	Before '33	3	1	7	61	1	500	1	3	37	1	3	215	6	1	3	2	3		7	2	21	4	86		1308
	Unid.*				2		7			1			4							1						22
	Total	3	1	28	236	1	1816	11	13	158	6	8	756	12	3	11	3	10	1	25	7	100	14	151	3	4576
STUDEBAKER	6 Mo. '46	47	30	28	246	22	376	216	5	357	100	109	593	19	68	44	133	339	68	18	95	121	28	122	37	6866
	'45	34	5	9	42	8	134	43	33	200	16	49	262	7	35	28	30	76	15	6	28	34	25	71	12	2494
	'44	5			5		10	30	2	6	4	175	75	3	31	1	1	2			29	111	12	2	15	968
	'43				11	1	33	32	1	25	3	3	21		20		3	6		3	19	20	17			401
	'42	26	8	1	58	14	116	107	38	133	44	36	435	3	44	17	73	99	24	5	53	57	10	33	23	2895
	'41	61	26	20	164	8	544	185	101	363	92	122	267	26	66	31	109	271	61	19	125	203	87	98	41	5868
	'40	10	3	7	72		118	15	10	77	33	16	75	7	6	4	11	51	10	4	9	48	18	29	9	1412
	'39	16	12	2	55	7	147	6	7	84	9	54	209	12	3	12	23	75	33	4	13	99	35	28	15	2024
	'38	20	5	4	41	3	119	3	8	110	14	38	224	3	3	11	17	84	28	6	8	60	19	47	9	1825
	'37	27	27	21	144	17	336	22	29	228	56	156	381	24	18	23	29	197	56	9	24	202	79	116	25	4516
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	'33	2		1	22	1	60	3	5	19	5	9	36		2	6	4	10		2	3	23	3	13		624
	Before '33	136	7	33	136	7	297	8	71	136	63	153	227	25	18	77	48	123	13	29	37	336	51	269	17	5153
	Unid.*		1		9		27	1		2	3	3	4		1		9	7	1			2		4		324
	Total	412	130	141	1176	95	2664	674	342	1990	473	1002	3085	153	344	281	522	1419	341	107	474	1470	430	918	212	39193
WHITE	6 Mo. '46	40	2	5	167	18	288	89		347	47	34	291	9	44	5	109	198	1	2	62	30	38	66	8	3470
	'45	107	2	11	248	30	661	113	13	583	146	116	607	50	87	17	105	395	10	4	149	81	91	268	15	6880
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	'42	44	10	10	93	29	256	97	1	316	54	138	503	8	91	5	110	194	10	10	137	101	75	150	21	4377
	'41	49	4	20	490	27	1065	247	2	1292	126	149	667	47	109	3	211	588	26	13	184	202	128	284	20	10239
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	'37	10	9	12	354	10	1047	39	2	519	44	63	604	26	44	2	47	135	6	15	77	121	118	74	12	5407
	'36	15	4	9	433	4	861	65	5	479	21	30	420	21	25	1	40	113	1	8	81	90	77	91	2	4819
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	Before '33	53	12	10	583	14	1176	32	11	692	56	158	600	50	31	15	53	102	8	3	86	322	33	97	18	7946
	Unid.*		1		26		17	2		8	4	5	20	1	3		26	13	1		2		1	8	2	685
	Total	436	62	129	4073	171	8625	1064	52	6964	686	993	6026	402	587	61	995	2548	102	90	1142	1395	838	1546	134	67831
WILLYS-OV-WH	6 Mo. '46	112	42	48	449	29	692	365	9	875	220	188	619	43	142	86	123	673	81	78	307	104	116	150	49	12537
	'45	30	8	9	111	4	174	20	6	152	32	43	81	14	15	12	10	131	1	11	51	24	41	23	5	2136
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	'38	11	4	14	57	5	106	38	13	91	48	28	130	2	15	10	15	108	7	7	35	20	44	47	7	1790
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	'34	1	1		1		4	1	1	2	1	4	5		2		1	3	2	2	1	9	2			116
	'33				2		18		1	8		6	3	3	1	1	2	5				3	2	7	1	141
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	Unid.*	1	1	4	14		14	3		2	5		6			3	12	6		2	2			4	1	356
	Total	302	81	162	1127	61	2006	623	124	1937	567	657	1745	137	255	184	438	1463	192	144	501	789	455	579	107	31766
YELLOW	6 Mo. '46						95	1					1							1		1	2			117
	'45			2	20	1	22			4			2	14			17	2		1	18		28			316
	'44			6	11		10			4		18		10			38				30		8			329
	'43						9					6		6			1	1					4			55
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	Total	27	31	54	2619	3	1965	121		117	120	170	743	84	26	6	310	416	10	2	241	182	841	222	1	14106
MISC.	6 Mo. '46	15	19	13	176	18	704	156	1	148	292	114	311	25	29	15	165	281	54	10	99	88	21	51	9	6579
	'45	19	21	12	89	18	493	148	6	77	124	203	223	41	30	9	76	244	8	9	110	183	72	91	8	5624
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	'41	30	16	26	517	20	1653	301	20	246	308	208	671	100	121	16	170	388	52	26	284	237	225	216	14	11171
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	'35	28	3	11	196	10	528	54	16	226	77	90	208	34	46	29	112	166	31	20	69	113	56	204	10	5177
	'34	17	6	19	134	6	442	76	9	197	61	61	205	32	58	18	51	153	18	18	64	120	70	97	12	3948
	'33	17		13	89	3	375	21	2	121	29	37	133	14	20	14	15	94	5	11	41	92	20	59	8	2725
	Before '33	532	83	182	1753	27	4204	171	406	1155	424	991	2891	203	152	386	252	1083	114	217	437	1743	325	2058	94	41984
	Unid.*	10	4	3	865	5	768	36	3	57	61	147	54	26	53	16	102	356	4	117	67	28	22	166	77	6599
	Total	979	225	380	5909	203	14852	2071	588	3581	2433	2745	7878	905	1047	652	1835	4967	532	561	2125	3794	1503	4106	309	134212

Source of data—R. L. Polk & Co.

Unid.*—Unidentified as to year of manufacture.

Cars, Trucks and Tractors on Farms—by States

1945 Compared with 1940

State	Passenger Cars		Per Cent Change	Trucks		Per Cent Increase	Tractors		Per Cent Increase	Total Automotive Equipment	
	1945	1940		1945	1940		1945	1940		1945	1940
Alabama	58,449	48,473	20.5	23,949	15,257	57.0	17,060	7,638	123.3	99,458	71,368
Arizona	12,356	10,401	18.8	6,859	4,284	60.1	6,372	4,129	54.3	25,587	18,814
Arkansas	53,925	48,571	11.0	33,134	19,674	68.4	26,537	12,564	111.2	113,596	80,809
California	160,252	150,534	6.4	85,696	58,015	47.7	79,839	55,191	44.6	325,787	263,740
Colorado	44,529	50,426	−11.7	28,794	16,850	70.9	32,766	21,423	52.9	106,089	88,699
Connecticut	25,188	18,821	33.8	15,651	11,001	42.3	9,740	5,349	82.1	50,579	35,171
Delaware	9,537	8,164	16.8	3,800	2,567	48.0	4,604	2,661	73.0	17,941	13,392
Dist. of Columbia	22	39	−43.6	35	39	−10.3	21	25	−16.0	78	103
Florida	31,721	27,393	15.8	21,639	14,360	50.7	12,812	7,703	66.3	66,172	49,456
Georgia	90,100	77,049	16.9	34,688	21,693	59.9	24,648	9,327	164.3	149,436	108,069
Idaho	35,802	38,184	−6.2	19,096	12,002	59.1	20,299	11,103	82.8	75,197	61,289
Illinois	200,964	210,555	−4.6	56,629	42,515	33.2	174,270	126,069	38.2	431,863	379,139
Indiana	165,796	172,981	−4.2	38,411	29,732	29.2	105,263	73,221	43.8	309,470	275,934
Iowa	224,216	236,601	−5.2	37,386	28,352	41.9	181,049	128,516	40.9	442,651	391,469
Kansas	133,593	150,403	−11.2	60,908	42,617	42.9	110,651	95,139	16.3	305,152	288,159
Kentucky	102,997	98,699	10.4	27,194	19,100	42.4	24,409	11,927	104.6	154,600	129,726
Louisiana	40,651	34,891	16.5	20,974	17,005	23.3	17,630	9,476	86.0	79,255	61,372
Maine	30,095	25,540	17.8	17,849	13,118	36.1	14,794	8,093	82.8	62,738	46,751
Maryland	41,485	38,848	6.8	19,197	13,058	47.0	18,789	10,335	81.8	79,471	62,241
Massachusetts	32,901	23,734	38.6	18,751	12,465	50.4	14,026	7,335	91.2	65,678	43,534
Michigan	172,655	181,209	−4.7	41,303	33,095	24.8	110,120	66,524	65.5	324,078	280,828
Minnesota	191,691	208,693	−8.2	47,413	38,617	22.8	152,555	105,075	45.2	391,659	352,385
Mississippi	56,906	55,702	2.2	28,267	18,565	52.3	21,077	10,577	99.2	106,250	84,844
Missouri	165,243	176,285	−6.3	47,225	31,771	48.6	76,110	45,155	68.5	288,578	253,211
Montana	31,569	35,699	−11.6	29,388	21,037	39.7	31,725	22,587	40.4	92,682	79,323
Nebraska	118,572	126,269	−6.1	33,761	24,090	40.1	96,203	70,761	35.9	248,536	221,120
Nevada	3,044	3,158	−3.6	2,603	1,683	54.7	1,827	681	168.3	7,474	5,522
New Hampshire	14,987	12,901	16.2	9,191	6,469	42.1	6,094	3,129	94.7	30,272	22,499
New Jersey	27,875	24,223	15.1	23,220	17,106	35.7	19,809	12,920	53.3	70,904	54,249
New Mexico	15,351	15,731	−2.4	11,902	7,117	67.2	10,735	5,837	83.9	37,988	28,685
New York	144,948	139,718	3.7	69,141	55,285	25.1	93,292	58,906	58.3	307,381	253,909
North Carolina	152,109	127,476	19.3	32,924	20,621	59.7	31,189	12,756	144.5	216,222	160,853
North Dakota	73,235	71,907	1.8	32,674	21,518	51.8	73,984	49,361	49.9	179,893	142,786
Ohio	221,587	231,368	−4.2	42,808	35,169	21.7	130,486	89,999	45.0	394,881	356,536
Oklahoma	100,584	112,369	−10.5	44,381	28,402	56.3	70,395	45,369	55.1	215,360	186,140
Oregon	59,362	58,797	1.0	28,118	16,825	67.1	28,646	17,077	67.7	116,126	92,699
Pennsylvania	165,166	157,988	4.5	56,271	44,323	27.0	92,638	54,842	68.9	314,075	257,153
Rhode Island	3,965	2,883	37.5	3,142	1,982	59.5	1,962	1,008	94.6	9,069	5,873
South Carolina	77,622	63,653	21.9	15,348	8,242	86.2	12,447	4,791	159.8	105,417	76,686
South Dakota	68,717	72,675	−5.5	22,230	14,269	55.8	62,772	44,154	42.2	153,719	131,098
Tennessee	91,392	85,233	7.2	26,326	18,908	39.2	24,052	11,817	103.5	141,770	115,958
Texas	259,599	277,664	−6.5	89,286	56,707	57.4	162,381	98,923	64.1	511,266	433,294
Utah	20,303	16,759	21.1	10,969	6,238	75.8	6,876	3,041	126.1	38,148	26,038
Vermont	19,663	17,979	10.0	9,567	6,172	55.0	7,327	3,566	105.5	36,557	27,717
Virginia	94,413	86,785	8.8	31,956	23,272	37.3	23,418	11,951	95.9	149,787	122,008
Washington	74,205	70,490	5.3	40,034	28,228	41.8	32,050	18,019	77.9	146,289	116,737
West Virginia	40,477	38,051	6.4	16,285	12,445	30.8	6,863	3,656	87.7	63,625	54,152
Wisconsin	181,107	188,312	−3.8	61,010	50,883	19.9	123,280	18,019	51.8	365,397	320,390
Wyoming	11,445	13,852	−17.4	8,917	6,341	40.6	9,855	6,534	50.8	30,217	26,727
Total	4,152,371	4,144,136	0.2	1,486,300	1,047,084	41.9	2,415,747	1,567,435	54.1	8,054,418	6,758,655

Data from Census of Agriculture, Bureau of the Census. —Indicates percentage decrease.

Automotive Wholesalers, Dealers and Repair Shops—by Years*

(As of January of Each Year)

	Wholesalers	Passenger Car Dealers	Total Truck Dealers	Car and Truck Dealers†	Independent Repair Shops	All Retail Outlets‡
1928	3,796	.....	23,869	.....	37,615	105,338
1929	3,912	50,984	24,068	.....	43,863	111,329
1930	4,028	51,560	25,436	.....	47,882	117,493
1931	4,668	47,144	26,137	48,658	53,898	118,713
1932	5,051	42,881	25,952	43,708	58,045	108,147
1933	5,337	38,003	23,746	39,370	59,547	103,113
1934	5,430	34,069	.....	35,265	65,064	102,456
1935	5,757	35,977	.....	37,238	64,518	105,991
1936	5,905	39,769	23,045	41,201	60,574	105,579
1937	5,874	41,288	24,853	43,461	56,423	102,808
1938	5,934	43,747	27,248	46,224	51,709	101,053
1939	6,019	39,936	26,909	41,992	50,406	95,418
1940	6,176	39,258	24,575	41,870	49,091	93,764
1941	6,575	39,833	24,992	41,790	49,208	95,296
1942	6,631	38,748	32,291	40,537	47,552	93,022
1943	6,130	32,470	27,820	34,270	43,540	80,863
1944	6,101	31,200	.....	33,000	42,166	78,550
1945	6,217	30,110	26,370	31,930	41,193	78,498
1946	6,612	30,709	27,159	32,439	42,702	81,638
1947	7,328	34,424	29,397	36,354	49,485	91,229

*—Trade List Department—Chilton Company. †—All Duplications Eliminated.
‡—Includes Car and Truck Dealers, Independent Repair Shops, Super Service Stations and Wrecking and Body Establishments, duplications eliminated.

Automotive Wholesalers, Dealers, Repair Shops, by States†

(As of January, 1947)

(With Number of Motor Vehicles per Outlet)

STATE	Total Motor Vehicle Registration	WHOLESALERS		DEALERS				REPAIR SHOPS		RETAIL OUTLETS*	
		Number of Wholesalers	Motor Vehicles per Wholesaler	Passenger Car Dealers	Truck Dealers	Car and Truck Dealers*	Motor Vehicles per Car and Truck Dealer	Independent Repair Shops	Motor Vehicles per Repair Shop	All Retail Outlets**	Motor Vehicles per Outlet
Alabama	384,229	117	3,284	420	389	455	844	389	1,041	886	433
Arizona	159,729	54	2,957	146	145	161	992	198	806	393	406
Arkansas	318,043	97	3,278	414	358	430	739	362	878	816	389
California	2,918,184	594	4,912	1,747	1,448	1,841	1,585	4,850	601	7,538	387
Colorado	392,165	96	4,085	462	374	495	792	678	578	1,177	333
Connecticut	508,122	105	4,820	485	397	516	980	642	788	1,309	386
Delaware	70,986	16	4,436	62	54	65	1,092	113	628	200	354
District of Columbia	127,765	23	5,555	67	49	70	1,825	127	1,006	227	562
Florida	607,809	133	4,569	447	379	472	1,287	492	1,235	1,053	577
Georgia	581,322	132	4,403	560	494	584	995	336	1,730	979	593
Idaho	163,995	61	2,688	327	295	341	480	325	504	708	231
Illinois	1,942,000	419	4,634	2,044	1,688	2,143	906	2,843	683	5,282	367
Indiana	1,080,695	205	5,271	967	802	1,014	1,065	1,145	943	2,154	501
Iowa	737,955	194	3,803	1,100	1,030	1,182	624	1,085	680	2,440	302
Kansas	650,525	142	4,581	743	664	771	843	678	962	1,397	465
Kentucky	464,000	115	4,034	581	509	610	760	446	1,040	1,057	438
Louisiana	434,764	86	5,055	344	302	361	1,204	323	1,346	727	598
Maine	226,048	45	5,023	326	282	344	657	543	416	884	255
Maryland	500,366	79	6,333	386	335	410	1,220	414	1,208	843	593
Massachusetts	972,281	209	4,652	961	770	1,000	972	1,175	827	2,435	399
Michigan	1,598,628	300	5,328	1,563	1,312	1,613	991	2,854	560	4,781	334
Minnesota	807,932	143	5,649	1,344	1,212	1,403	575	1,415	570	3,059	264
Mississippi	275,500	83	3,319	444	415	473	582	219	1,257	708	390
Missouri	965,165	226	4,270	944	840	1,002	963	1,294	745	2,470	390
Montana	175,049	53	3,302	334	296	364	480	253	691	656	266
Nebraska	438,807	107	4,101	539	491	572	767	584	751	1,241	353
Nevada	49,495	14	3,535	74	69	80	618	121	409	234	211
New Hampshire	137,695	27	5,099	205	167	211	652	255	539	478	288
New Jersey	1,094,744	198	5,585	896	704	953	1,148	1,807	605	2,903	377
New Mexico	134,382	52	2,584	163	150	175	767	165	814	364	369
New York	2,626,113	503	5,220	2,361	1,893	2,521	1,041	4,983	529	7,937	330
North Carolina	680,322	169	6,025	748	644	775	877	733	928	1,621	419
North Dakota	193,089	41	4,709	411	385	426	453	416	464	905	213
Ohio	1,997,400	414	4,824	1,771	1,448	1,866	1,070	2,364	844	4,532	440
Oklahoma	560,803	158	3,549	647	576	697	804	1,130	496	1,846	303
Oregon	460,659	112	4,113	440	381	464	992	1,111	414	1,731	266
Pennsylvania	2,208,721	486	4,544	2,612	2,084	2,754	802	4,301	513	7,546	292
Rhode Island	191,495	32	5,984	128	99	134	1,429	266	719	441	434
South Carolina	366,129	71	5,156	386	329	402	910	337	1,086	710	515
South Dakota	192,867	37	5,212	303	269	318	606	279	691	612	315
Tennessee	515,470	121	4,260	422	386	447	1,153	384	1,342	880	585
Texas	1,807,200	436	4,144	1,610	1,409	1,750	1,032	2,598	695	4,430	407
Utah	171,008	61	2,803	168	152	181	944	279	612	504	339
Vermont	102,211	20	5,110	162	145	172	594	222	460	414	246
Virginia	597,779	107	5,586	630	547	662	961	679	880	1,391	429
Washington	644,686	156	4,132	648	548	689	935	1,659	388	2,449	263
West Virginia	298,593	79	3,779	415	380	446	669	362	824	871	342
Wisconsin	907,849	171	5,309	1,306	1,162	1,371	662	1,178	770	2,709	335
Wyoming	91,656	31	2,956	160	150	168	545	115	797	303	302
Total	33,530,430	7,328	4,575	34,424	29,397	36,354	992	49,485	677	91,229	367

†—Trade List Department—Chilton Company.
*—All Retail Outlets include Passenger Car and Truck Dealers, Independent Repair Shops, Super Service Stations and Wrecking and Body Establishments.

12-Year Record of New Car Sales by Makes

(New Passenger Car Registrations by Makes—by Years)*

Make of Car	1946	3 Mos. 1942‡	1941	1940	1939	1938	1937	1936	1935	1934	1933	1932
Chrysler	65,532	3,700	143,025	100,117	63,956	46,184	91,622	58,698	40,536	28,052	28,677	26,016
De Soto	54,420	2,585	91,004	71,943	51,951	35,259	74,424	45,088	26,952	11,447	21,260	25,311
Dodge	135,488	6,597	215,563	197,252	176,585	104,881	255,258	248,518	178,770	90,139	86,062	28,111
Plymouth	211,800	13,740	452,187	440,093	348,807	286,241	462,268	499,580	382,985	302,557	249,667	111,926
Total—Chrysler Corporation	467,240	26,622	901,779	809,405	641,299	472,565	883,572	851,884	629,243	432,195	385,666	191,364
Ford	326,822	17,666	602,013	542,755	481,496	363,688	765,933	748,554	826,519	530,528	311,113	258,927
Lincoln	10,798	937	18,769	21,004	19,940	16,991	25,243	15,567	2,370	2,061	2,112	3,179
Mercury	61,187	2,579	81,874	80,418	65,884	6,835	.....	.....	.....	.....	.....	.....
Total—Ford Motor Co.	398,807	21,182	702,656	644,177	567,320	387,514	791,176	764,121	828,889	532,589	313,225	262,106
Buick	126,322	9,641	308,615	295,513	218,995	166,380	205,297	160,687	87,635	63,067	43,809	49,706
Cadillac	23,666	2,196	60,242	21,965	13,090	10,639	11,231	11,766	6,692	4,899	3,903	6,269
Chevrolet	329,501	25,201	880,346	853,529	598,341	464,337	768,040	930,250	656,698	534,906	474,493	322,860
La Salle	.....	.....	.....	16,599	22,197	15,732	28,909	13,992	11,775	5,182	3,709	3,848
Oldsmobile	93,094	6,557	230,367	201,256	146,412	92,398	188,306	178,488	149,375	71,676	35,295	24,128
Pontiac	113,109	8,020	286,123	235,815	159,836	98,399	212,403	171,669	140,122	72,645	85,348	47,926
Total—General Motors Corp.	685,792	51,615	1,765,693	1,624,677	1,158,871	847,885	1,414,186	1,466,852	1,052,297	752,375	646,557	454,739
Auburn	.....	.....	.....	.....	.....	.....	146	1,848	5,163	5,536	5,038	11,646
Bantam (Austin)	.....	.....	138	800	1,227	700	.....	.....	.....	1,057	3,675	.....
Continental	.....	.....	.....	.....	.....	.....	.....	.....	.....	953	3,310	.....
Cord	.....	.....	.....	.....	.....	.....	1,149	1,174	.....	.....	.....	335
Crosley	2,868	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
De Vaux	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,358
Durant	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,135
Franklin	.....	.....	.....	.....	.....	.....	.....	.....	.....	360	1,329	1,829
Frazer	1,873	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Graham	.....	.....	544	1,856	3,660	4,139	13,984	16,439	15,965	12,887	10,128	12,858
Hudson	72,484	2,963	73,261	79,979	62,855	40,889	90,043	20,825	21,587	19,307	2,946	8,641
Hupmobile	.....	.....	103	211	907	1,020	403	1,556	7,450	6,566	6,726	10,794
Kaiser	3,501	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
La Fayette	.....	.....	.....	.....	.....	.....	.....	.....	17,445	9,301	.....	.....
Marmon	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	86	1,365
Nash	85,169	2,876	77,824	52,853	54,050	31,814	70,571	43,070	17,739	14,315	11,353	20,233
Packard	38,435	2,602	69,653	73,794	62,005	49,163	95,455	68,772	37,653	6,552	9,081	11,058
Pierce-Arrow	.....	.....	.....	.....	.....	17	167	787	875	1,740	2,152	2,692
Reo	.....	.....	.....	.....	.....	.....	.....	3,146	3,894	3,854	3,623	3,870
Rockne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14,554	16,966
Studebaker	58,051	4,662	114,331	102,281	84,660	41,504	70,048	67,835	39,573	41,560	21,688	25,002
Terraplane (Essex)	.....	.....	.....	.....	†	†	†	78,471	53,858	40,510	35,831	28,778
Willys and Whippet	2,329	646	22,102	21,418	14,734	13,012	51,411	12,423	10,439	6,576	15,314	22,483
Willys-Knight	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	353	3,415
Miscellaneous	647	107	3,082	4,454	1,789	799	1,441	5,294	1,858	324	1,159	3,732
Total—All Other Makes	263,357	13,856	361,038	337,646	285,887	183,057	394,818	321,640	233,479	171,398	148,346	188,190
Total—All Makes	1,815,196	113,275	3,731,166	3,415,905	2,653,377	1,891,021	3,483,752	3,404,497	2,743,908	1,888,557	1,493,794	1,096,399

*—R. L. Polk & Co. data. †—Included with Hudson. ‡—Complete except for Connecticut for month of March.

12-Year Record of New Truck Sales, by Makes

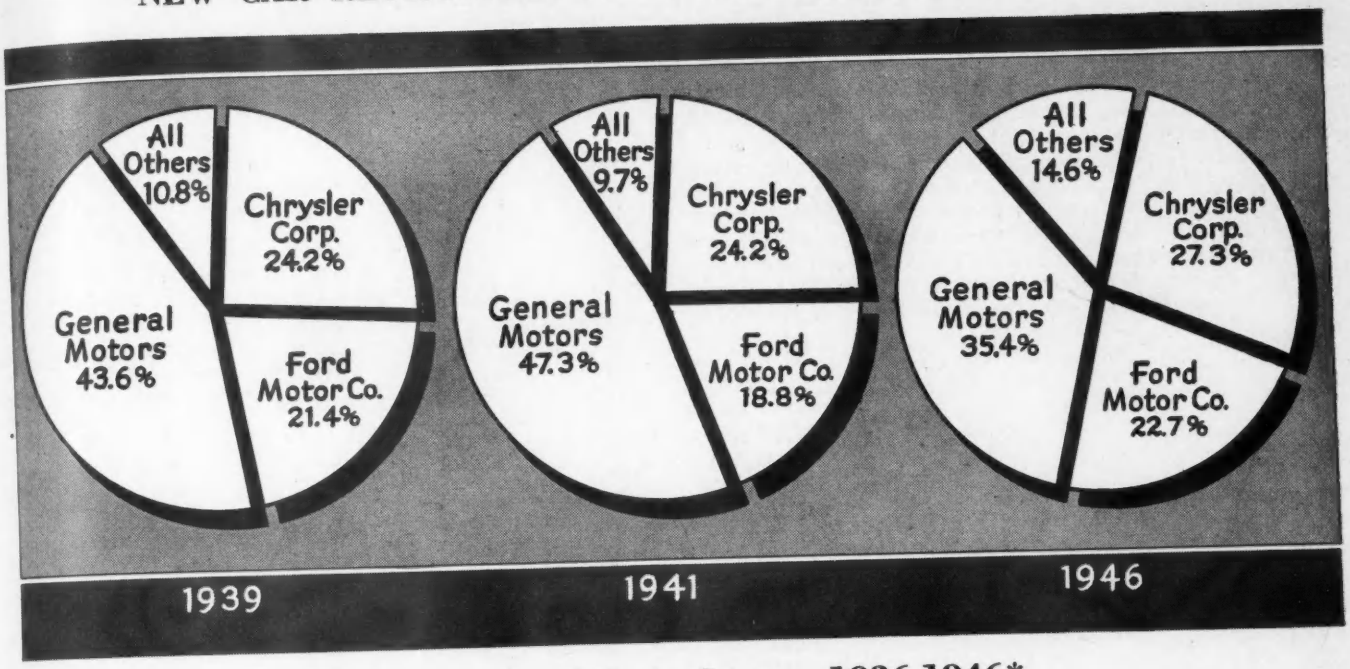
(New Truck Registrations by Makes, by Years)*

	1946	1942	1941††	1940	1939	1938	1937	1936	1935	1934	1933	1932
Autocar	4,755	319	2,510	1,955	2,044	1,617	2,181	1,451	1,001	1,139	1,127	1,015
Brockway	3,683	171	2,294	1,672	1,815	1,303	1,593	1,695	1,245	1,213	875	752
Chevrolet	171,618	11,250	212,797	194,038	169,457	119,479	183,874	204,344	167,129	157,507	99,880	60,784
Diamond T	5,093	530	6,077	6,358	5,412	4,393	8,118	8,750	6,454	5,440	4,139	2,250
Divco	3,734	180	2,306	1,662	1,481	1,229	1,125	964	398	254	200	.....
Dodge	96,490	4,736	62,925	54,615	48,049	33,656	64,098	85,295	61,488	48,252	28,034	8,744
Federal	4,557	175	1,611	1,617	1,837	1,370	2,339	2,930	2,190	1,962	1,360	1,167
Ford	131,469	11,050	174,024	162,333	128,889	100,959	189,376	177,244	185,848	128,250	62,397	66,937
F. W. D.	585	75	280	252	182	274	435	369	212	156	71	.....
G. M. C.	25,845	3,429	45,703	42,486	34,908	20,152	43,522	26,980	11,442	10,449	6,602	6,359
Hudson	2,543	33	736	761	409	719	4,823	1,905	638	.....	.....	.....
Indiana	.....	.....	.....	.....	178	435	1,371	1,705	862	729	1,252	957
International	78,392	7,316	92,482	77,891	66,048	55,836	76,174	71,958	53,471	31,555	26,658	15,752
Mack	4,687	767	9,468	7,754	6,670	4,406	5,513	4,226	1,515	1,830	1,652	1,425
Plymouth	28	137	7,732	9,573	8,294	6,652	13,709	2,420	660	.....	.....	.....
Reo	10,489	156	1,543	625	853	2,929	4,254	4,227	5,101	5,035	3,042	3,187
Sterling	510	37	400	341	326	267	311	277	174	134	108	227
Stewart	.....	.....	.....	.....	70	390	1,148	1,280	880	736	684	867
Studebaker	25,360	394	5,078	1,207	2,110	2,000	5,129	3,279	2,100	1,697	1,872	2,430
White	10,117	933	9,271	7,344	4,558	3,514	5,933	5,757	3,304	3,963	1,334	2,138
Willys	42,135	98	2,031	2,291	1,634	1,889	1,122	2,441	2,280	25	233	1,182
All Others	3,359	158	1,429	1,552	1,524	1,880	2,301	2,147	2,291	3,560	4,299	4,290
Total	625,249	41,944‡	640,697	576,327	486,748	365,349	618,249	611,644	510,683	403,886	245,869	180,413

* Data from R. L. Polk & Co. †† Does not include Federal Government registrations which are included in previous years.
‡-Three months only does not include Connecticut for month of March.

CARS AND TRUCKS

NEW CAR REGISTRATIONS BY MANUFACTURING GROUPS



Passenger Car Sales by States—1936-1946*

New Car Registrations and Deliveries Under Rationing

	1946	1945‡	1944‡	1943‡	1942‡	1941	1940	1939	1938	1937	1936
Alabama	21,850	131	986	3,596	3,816	42,453	36,326	30,657	19,427	34,936	35,198
Arizona	5,711	15	211	1,011	1,039	11,603	10,943	8,191	6,738	12,562	12,758
Arkansas	10,817	87	567	2,497	3,149	23,873	21,916	19,859	12,244	19,793	19,612
California	136,419	651	7,150	22,426	16,772	276,649	250,894	187,720	148,011	248,075	256,255
Colorado	13,346	65	414	1,705	2,132	28,054	27,668	24,630	17,699	32,505	35,721
Connecticut	27,797	110	957	2,352	3,737	64,606	56,821	38,859	26,283	51,266	51,342
Delaware	5,243	13	111	544	879	11,371	9,962	7,649	5,429	9,748	8,477
District of Columbia	14,048	92	555	1,171	1,842	30,188	29,170	25,637	17,944	28,259	32,787
Florida	26,680	164	1,456	3,887	4,250	57,598	55,146	42,462	26,102	43,445	38,968
Georgia	25,102	150	1,627	5,069	8,471	59,300	52,400	41,125	25,319	48,823	43,581
Idaho	6,106	33	185	797	1,340	13,842	13,120	9,890*	6,883	14,139	14,438
Illinois	122,081	542	4,275	12,083	24,249	274,142	245,552	193,235	133,914	250,205	236,138
Indiana	55,679	133	1,306	5,219	11,314	122,224	113,479	84,494	56,339	123,971	116,280
Iowa	33,008	76	578	3,512	4,958	66,508	65,617	59,666	47,489	68,196	71,883
Kansas	23,635	101	1,018	3,439	4,471	49,776	46,598	34,687	27,301	56,315	54,094
Kentucky	23,291	85	775	2,479	3,462	42,011	38,956	30,806	22,906	41,391	40,109
Louisiana	19,747	242	1,599	3,938	3,866	43,504	37,673	32,580	24,842	34,084	37,471
Maine	8,473	67	506	1,192	2,079	20,043	19,316	14,204	11,038	20,048	17,890
Maryland	26,309	165	1,097	3,105	5,613	56,579	51,319	39,389	27,331	46,371	44,228
Massachusetts	63,188	295	2,701	5,678	4,642	125,603	110,599	92,480	63,682	115,603	117,281
Michigan	141,115	302	2,943	10,880	21,680	258,733	226,696	163,017	87,184	241,156	226,968
Minnesota	37,325	137	1,111	3,946	8,207	77,038	73,653	60,771	52,667	82,874	81,773
Mississippi	13,783	84	677	2,435	2,338	26,931	26,747	22,302	13,670	22,646	25,006
Missouri	49,606	223	1,384	4,825	10,921	102,684	96,901	76,705	55,543	89,985	87,687
Montana	7,015	30	230	894	1,808	17,142	16,697	13,523	10,154	18,062	20,745
Nebraska	16,786	73	576	2,238	3,160	32,452	28,935	25,715	22,319	33,640	37,695
Nevada	2,105	10	129	566	726	4,398	4,075	3,282	2,576	4,767	5,255
New Hampshire	5,099	35	239	535	690	13,270	13,377	10,328	7,062	12,961	12,258
New Jersey	63,784	312	2,254	5,284	6,140	134,584	127,347	96,049	70,764	122,103	111,737
New Mexico	4,685	36	292	870	743	10,244	10,039	8,315	6,393	10,781	10,881
New York	183,070	619	4,304	11,986	17,046	331,730	320,797	264,287	194,049	329,951	303,323
North Carolina	30,648	76	936	4,866	5,165	65,727	56,760	46,160	33,922	55,341	49,364
North Dakota	6,046	27	209	1,226	1,390	13,621	12,358	9,805	8,620	12,060	11,095
Ohio	124,689	300	3,491	11,889	22,984	256,034	233,439	167,526	105,439	250,192	244,885
Oklahoma	24,510	214	1,434	3,888	3,351	46,226	45,966	39,627	34,343	51,580	56,605
Oregon	17,520	83	550	2,505	3,306	41,558	34,358	25,574	18,769	35,915	40,460
Pennsylvania	137,695	429	3,934	10,394	21,685	289,285	274,035	196,201	140,332	293,909	273,281
Rhode Island	10,052	67	459	983	1,231	22,337	19,509	16,306	10,483	20,500	19,309
South Carolina	16,635	39	482	3,062	2,999	35,611	30,432	25,100	15,748	26,959	24,020
South Dakota	6,281	10	158	1,011	1,577	12,451	12,296	10,589	7,911	12,728	13,556
Tennessee	30,689	112	905	3,780	4,504	56,115	49,922	37,466	24,973	42,320	41,959
Texas	88,069	794	6,587	16,549	13,771	174,314	160,056	132,313	103,817	150,093	157,995
Utah	6,280	30	369	1,520	1,612	13,156	12,689	10,038	7,045	14,358	14,398
Vermont	4,167	19	138	371	697	10,204	8,792	6,666	4,687	8,799	8,413
Virginia	31,573	102	1,042	3,927	6,043	73,808	57,840	42,172	31,204	50,768	50,346
Washington	25,565	72	993	3,801	4,468	58,613	46,497	33,316	23,935	49,699	54,458
West Virginia	13,432	54	388	1,412	2,748	33,166	31,102	22,955	16,483	35,679	37,272
Wisconsin	44,608	154	1,257	3,930	6,751	91,109	83,340	61,873	48,872	97,241	88,569
Wyoming	3,834	16	182	542	957	8,700	7,775	7,174	5,136	8,968	9,683
Total	1,815,196	7,676	65,730‡	205,805‡	290,779‡	3,731,166	3,415,905	2,653,377	1,891,021	3,483,752	3,404,497

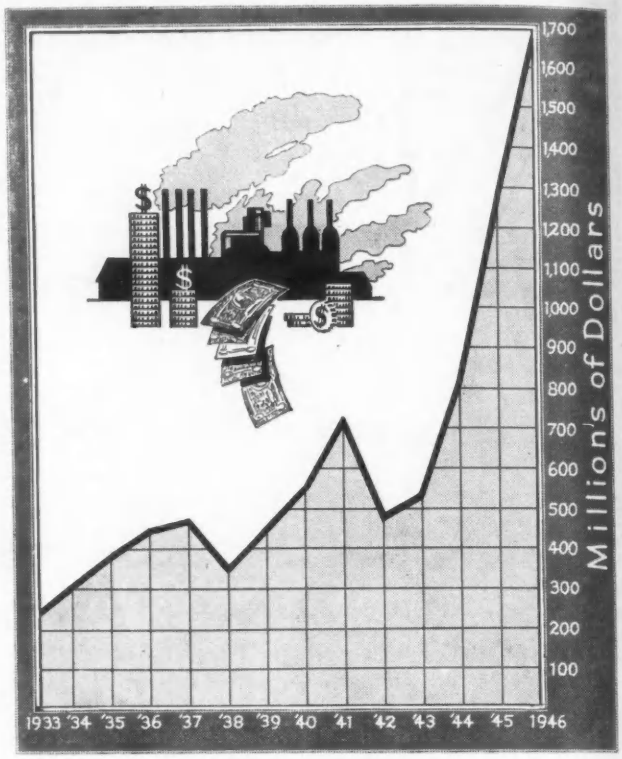
*—R. L. Polk new registrations 1935 through March 1942; April 1942 through June 1945, Deliveries under Rationing by O.P.A. R. L. Polk for 1946.
‡—In addition there were 29,716 authorized to Federal Agencies during 1942, 3778 for 1943, 2187 for 1944 and 630 for 1945. These are not distributed by states.

Wholesale Value of Repair Parts and Accessories Production, 1933-1946

With motor vehicle registrations in 1941 at 34,152,407, the dollar volume of replacement parts and accessory sales for that year amounted to $718,212,000, as shown in table above. In 1946 such sales reached an estimated total of $1,690,000,000 with registrations at 33,530,430. This marked increase in parts and accessory sales is an indirect indication and largely a direct result of the increased age of cars in use. Ten years ago the average age of passenger cars in use was about 4.50 years. As of July, 1944, it was 6.75 years, and at the middle of 1946 it was 8.94 years.

Year	Wholesale Value
1933	$234,461,000
1934	304,642,000
1935	378,323,000
1936	448,527,000
1937	464,619,000
1938	348,068,000
1939	454,673,000
1940	553,004,000
1941	718,212,000
1942	471,957,000
1943	527,710,000
1944	816,724,000
1945	1,284,926,000
1946	1,690,000,000*

*Partly estimated. All estimates based on U.S. Excise Tax receipts.

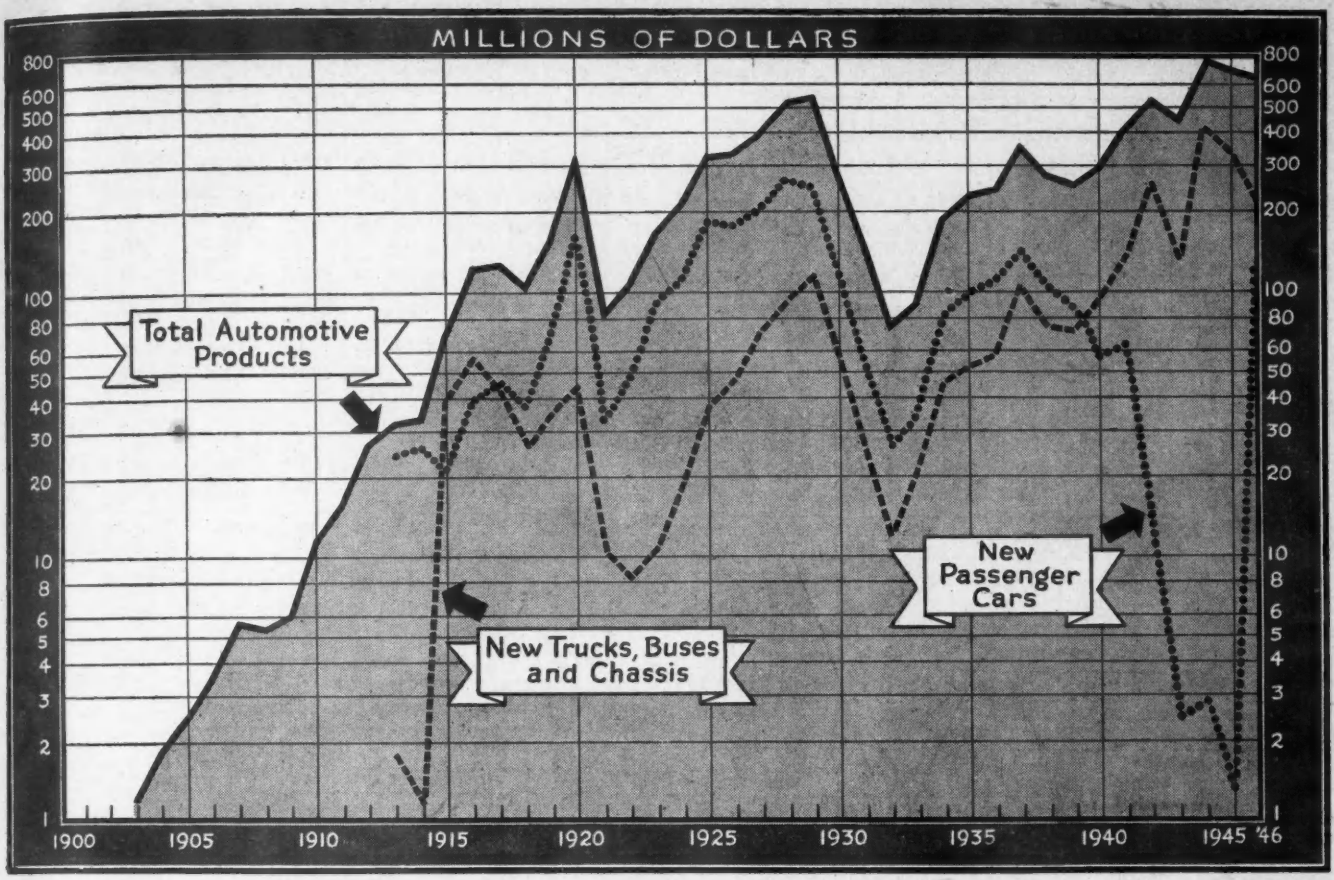


1946 Volume of Parts and Accessory Sales by States at Wholesale Prices—Estimated*

State	Wholesale Value	State	Wholesale Value
Alabama	$19,435,000	Nebraska	$22,139,000
Arizona	8,112,000	Nevada	2,535,000
Arkansas	16,055,000	New Hampshire	6,929,000
California	147,199,000	New Jersey	55,094,000
Colorado	19,773,000	New Mexico	6,760,000
Connecticut	25,519,000	New York	132,496,000
Delaware	3,549,000	North Carolina	34,307,000
District of Columbia	6,422,000	North Dakota	9,802,000
Florida	30,589,000	Ohio	100,724,000
Georgia	29,237,000	Oklahoma	28,223,000
Idaho	8,281,000	Oregon	23,153,000
Illinois	97,851,000	Pennsylvania	111,371,000
Indiana	54,418,000	Rhode Island	9,633,000
Iowa	37,180,000	South Carolina	18,421,000
Kansas	32,786,000	South Dakota	9,802,000
Kentukcy	23,322,000	Tennessee	26,026,000
Louisiana	21,970,000	Texas	91,091,000
Maine	11,323,000	Utah	8,619,000
Maryland	25,181,000	Vermont	5,070,000
Massachusetts	49,010,000	Virginia	30,082,000
Michigan	80,613,000	Washington	32,448,000
Minnesota	40,729,000	West Virginia	15,041,000
Mississippi	13,858,000	Wisconsin	45,799,000
Missouri	48,672,000	Wyoming	4,563,000
Montana	8,788,000	Total	$1,690,000,000

*—Estimated total U. S. dollar volume based on excise tax receipts. State volume of sales based on the percentage of total registrations of motor vehicles for each state applied to the U. S. dollar volume.

1946 AUTOMOTIVE EXPORTS VALUED AT $642,000,000



U. S. Exports of New Motor Vehicles, 1916-1946

In Units and Their Value and Including Lend-Lease

YEAR	PASSENGER CARS			TRUCKS, BUSES AND CHASSIS			TOTAL MOTOR VEHICLES		
	Number	Value	% of U. S. Production (Units)	Number	Value	% of U. S. Production (Units)	Number	Value	% of U. S. Production (Units)
1916	56,234	$40,660,263	3.7	21,265	$56,805,548	23.0	77,499	$97,465,811	4.8
1917	64,808	48,612,632	3.7	15,977	42,343,502	12.5	80,785	90,956,134	4.3
1918	36,936	36,278,292	3.9	10,308	26,814,952	4.5	47,244	63,093,244	4.0
1919	67,145	73,700,527	4.1	15,585	35,425,437	6.9	82,730	109,125,964	4.4
1920	142,508	165,255,921	7.5	29,136	46,775,781	9.1	171,644	212,031,702	7.7
1921	30,950	32,533,725	2.1	7,840	10,335,893	5.3	38,790	42,869,618	2.4
1922	66 791	51,049 816	2.9	11,443	8,270,708	4.2	78,234	59,320,524	3.0
1923	127,035	90,692,272	3.5	24,859	15,317,136	6.1	151,894	106,009,408	3.7
1924	151,380	112,534,729	4.7	27,352	19,199,344	6.6	178,732	131,734,073	4.9
1925	244,306	184,885,830	6.5	58,625	37,703,402	11.0	302,931	222,589,232	7.1
1926	238,540	176,432,157	6.3	66,880	47,176,107	21.1	305,420	223,608,264	7.1
1927	278,748	207,966,456	9.5	105,447	70,123,600	22.7	384,195	278,090,056	11.2
1928†	375,428	269,393,369	9.8	140,191	93,006,070	25.8	515,619	362,399,439	11.8
1929	346,630	239,334,000	7.5	197,872	112,607,985	25.6	544,502	351,941,985	10.1
1930	159,464	110,355,978	5.7	85,666	56,861,119	14.9	245,130	167,217,097	7.3
1931	86,437	52,851,585	4.3	49,415	26,210,975	11.8	135,852	79,062,560	5.6
1932	44,282	25,502,047	3.8	25,532	12,142,681	10.8	69,814	37,644,728	5.1
1933	67,355	33,945,464	4.2	44,103	20,691,338	12.7	111,458	54,636,802	5.8
1934	148,387	80,604,563	6.8	93,766	45,125,359	16.3	242,153	125,729,922	8.7
1935	179,470	99,342,411	5.5	100,668	51,995,938	14.4	280,138	151,338,349	7.0
1936	186,542	107,483,285	5.1	108,167	56,765,713	13.7	294,709	164,248,998	6.6
1937	237,719	140,638,203	6.0	169,076	102,889,939	18.9	406,795	243,528,142	8.4
1938	167,693	104,628,982	8.4	117,943	74,451,986	24.1	285,636	179,080,968	11.4
1939	143,909	87,171,300	5.0	116,913	71,422,015	16.4	260,822	158,593,315	7.2
1940	88,806	57,253,737	2.6	103,459	87,867,077	13.7	192,265	145,120,814	4.5
1941	81,746	60,702,648	2.4	147,132	148,149,880	13.9	228,878	208,852,528	5.0
1942	13,951	13,199,744	‡	156,154	257,969,741	19.1	170,105	271,169,485	....
1943	2,092	2,424,583	‡	74,857	145,776,607	10.7	76,949	148,201,190	....
1944	1,622	2,769,694	‡	177,036	404,476,232	24.0	178,658	407,245,926	....
1945	1,206	1,447,376	1.7	142,338	348,271,144	21.7	143,544	349,718,520	19.8
1946	116,644	122,227,208	5.4	168,187	225,857,672	17.9	284,831	348,084,880	9.2

‡—Taken from stock piles. †—From 1928 through 1941 exports include shipments to non-contiguous territories.
Note—Prior to 1931 figures include used vehicles, but the effect of these used vehicles on per cent of production is negligible.
Source—Machinery and Metals Division, Office of International Trade, Department of Commerce.

1946 U. S. Exports of New Trucks, Buses and Chassis*

By Tonnage Rating and Continental Divisions

Tonnage Rating	Europe		North America		South America		Asia		Oceania		Africa		Total	
	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
¼ Ton and under	1,981	$1,960,628	6,077	$5,945,737	3,032	$3,693,625	2,371	$2,572,090	97	$82,849	2,002	$2,093,567	16,060	$18,328,496
Over ¼ Ton and not over ½ Ton	2,078	1,623,121	1,953	1,527,765	2,508	1,908,489	700	645,142	654	402,829	1,069	885,536	8,962	6,990,882
Over ½ Ton and under 1 Ton	434	441,634	1,927	1,556,662	2,260	1,812,107	372	312,174	283	227,427	444	359,879	5,720	4,709,883
1 Ton	618	567,795	943	1,014,313	963	1,143,999	253	329,533	265	178,020	397	394,591	3,439	3,628,231
Over 1 Ton and not over 1½ Tons	20,748	21,511,360	15,049	17,359,370	25,465	28,229,668	14,617	16,158,932	907	830,284	7,165	6,968,729	83,949	91,058,343
Over 1½ Tons and not over 2½ Tons	3,786	5,256,243	7,584	11,968,298	15,558	21,185,825	3,371	6,309,671	769	1,003,543	2,648	3,233,228	33,716	48,956,808
Over 2½ Tons and not over 4 Tons:														
Diesel	16	51,225	143	471,706	72	379,629	3	9,869	6	15,585	18	57,135	258	985,149
Gasoline	757	1,987,891	1,556	3,748,357	2,029	4,793,591	4,528	14,639,665	484	722,558	395	914,790	9,749	28,806,862
Over 4 Tons and not over 5 Tons:														
Diesel	12	55,482	77	328,554	27	143,235	.....	.....	.....	.....	.....	.....	116	527,271
Gasoline	352	1,728,493	649	3,015,033	583	2,204,708	544	2,652,811	4	10,386	123	321,846	2,255	9,933,277
Over 5 Tons:														
Diesel	77	485,023	275	2,436,061	105	1,042,827	7	82,688	3	19,224	52	389,368	519	4,455,191
Gasoline	113	713,448	548	3,892,178	340	2,156,307	132	855,378	49	173,979	24	161,985	1,206	7,953,273
Bus Chassis	397	617,091	250	471,156	321	661,560	1,195	1,464,040	.....	.....	77	114,126	2,240	3,327,973
Total	31,287	$36,999,432	37,031	$53,735,190	53,863	$69,353,570	28,093	$48,031,993	3,521	$3,646,684	14,414	$15,894,780	168,189	$225,861,849

*—Machinery and Metals Division, Office of International Trade, Department of Commerce

U. S. Exports of Automotive Products, 1942-1946‡

Type o Product	1942		1943		1944		1945		1946	
	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value
VEHICLES										
Motor Trucks, Buses and Truck Chassis, New	156,154	$257,969,741	74,857	$145,776,607	177,036	$404,476,232	142,338	$348,327,144	185,947	$222,529,699
Bus Chassis, New	192	286,663	24	61,531	Included	with Trucks	Included	with Trucks	2,240	3,327,973
Trucks, Buses and Chassis, Used	392	265,138	347	351,228	4,046	5,533,261	5,435	7,956,699	10,203	14,334,362
Passenger Cars and Chassis, New	13,951	13,199,744	2,092	2,424,583	1,622	2,769,694	1,206	1,447,376	116,644	122,227,206
Passenger Cars and Chassis, Used	1,770	1,153,117	749	656,264	1,428	1,502,931	1,560	1,756,678	2,438	2,671,977
Trailers	5,469	15,814,930	859	607,373	1,516	2,405,202	3,320	3,293,363	14,138	8,729,268
Motorcycles	28,989	12,113,040	27,239	11,473,505	18,016	8,253,240	6,824	3,057,413	6,114	2,413,520
Motorcycle Parts and Accessories	.....	3,308,085	.....	2,954,373	.....	4,057,354	.....	1,955,881	.....	368,889
ENGINES										
Engines, Diesel, truck and bus for assembly	345	492,619	100	108,753	577	990,297	370	663,015	1,740	1,379,333
Engines, Gasoline, truck and bus for assembly	24,093	3,829,206	8,190	1,651,456	9,638	2,003,122	11 118	2,721,864	9,074	1,968,681
Engines, passenger car for assembly	1,290	179,609	900	237,987	333	102,109	661	80,388	1,402	174,514
Engines, Diesel for replacement	111	120,176	516	40,370	114	115,379	285	412,671	973	904,697
Engines, Gasoline for replacement	1,967	359,147	7,694	1,374,666	4,692	1,140,563	8,262	1,752,013	13,106	3,357,715
Engines, Marine, outboard	1,512	264,014	3,783	1,270,851	3,978	1,172,179	4,427	1,072,145	6,558	705,575
Engines, Other marine, interna combustion	3,359	11,585,599	8,418	49,625,882	11,222	41,624,282	5,235	7,815,295	7,132	2,812,317
Parts for Assembly	.....	63,858,112	.....	54,685,611	.....	60,711,716	.....	58 187,070	.....	50,828,001
REPLACEMENT PARTS										
Axle Shafts	71,779	305,443	56,481	557,610†	†	†	†	†	†	†
Pistons	.....	956,029	.....	491,058†	†	†	†	†	†	†
Piston Rings	.....	1,237,553	.....	766,535†	†	†	†	†	†	†
Valves	.....	332,456	.....	214,428†	†	†	†	†	†	†
Gears, Differential and Transmission	.....	1,466,000	.....	900,383†	†	†	†	†	†	†
Gears, Other n.e.s.	.....	761,234	.....	387,352†	†	†	†	†	†	†
Spark Plugs	3,448,215	931,112	4,394,388	1,152,035	5,803,891	1,556,896	6,884,863	1,788,676	12,921,916	3,510,303
Springs, Car and Truck	.....	1,467,082	.....	958,224†	†	†	†	†	.....	.....
Parts for replacement, Other, n.e.s.	.....	64,065,032	.....	48,607,993	.....	146,780,396	.....	142,248,018	.....	83,637,347
Horns, Hand and Electric	309,112	406,849	199,186	244,734	223,639	325,569	304,669	439,724	426,588	879,931
Accessories, Other, n.e.s.	.....	7,024,924	.....	8,928,175	.....	9,149,297	.....	7,448,252	.....	10,799,445
Tire Service Equipment and Parts	.....	806,085	.....	941,001	.....	808,629	.....	1,059,965	.....	1,595,304
Pumps for Gasoline and Oil	10,628	350,530	2,720	464,049	5,515	258,611	6,186	207,112	19,533	1,231,393
Service Appliances and Parts, Other	.....	2,300,905	.....	2,166,482	.....	2,223,105	.....	3,778,897	.....	9,023,669
Brake Lining, molded and semi-molded, lbs.*	3,619,401	1,706,624	1,542,531	1,138,469	2,069,968	1,467,692	2,185,463	1,580,652	2,495,990	1,937,752
Brake Lining, not molded, lin. ft.*	749,449	263,900	353,892	195,888	321 019	193,443	353,028	236,099	740,670	388,680
Brake Blocks, molded and semi-molded, lbs.*	746,255	197,679	203,359	160,414	361,728	251,543	285,113	218,374	411,392	297,784
Brake Blocks, woven, lbs.*	54,455	37,272	6,667	5,529	14,860	16 839	7.374	7,715	23,148	23,603
Clutch Facing, molded and semi-molded, number*	995,996	354,795	881,795	365,240	978,123	385,688	881,017	348,104	939,834	375,601
Clutch Facings, woven, number*	436,446	203,720	400 395	189,321	434,477	182,286	471,829	209,891	256,407	124,445
Starting, Lighting and Ignition Equipment*	.....	1,455,965	.....	2,131,954	.....	3,693,201	.....	5,261,686	.....	6,452,501
Batteries, storage, 6 and 12 volts*	304,430	1,811,979	444,939	3,958,667	580,347	4,948,848	720,925	6,813,114	407,425	2,949,777
Belts, fan for automobiles, lbs.	580,072	389,027	537,253	430,700	556,102	501,821	854,553	814,329	1,629,389	1,453,414
TIRES AND TUBES										
Casings, Truck and Bus	932,177	29,132,167	2,311,811	72,821,815	1,725,235	50,702,082	1,450,189	48,694,154	1,406,289	51,503,072
Casings, Other Automobile	363,354	5,096,774	273,384	3,421,931	189,521	2,175,434	142,908	1,826,638	1,059,126	13,549,726
Tubes, Inner for Automobiles	1,255,988	3,385,301	2,542,287	6,643,793	1,957,395	5,191,049	1,317,815	4,200,261	1,873,214	7,429,495
Casings and Tubes, Other	474,972	6,913 979	431,767	6,956,848	304,050	3,783,183	404,457	3,898,598	.....	.....
Tires, Solid for Cars and Trucks	17,336	480,932	5,820	224,002	4,221	168,180	15,248	550,857	42,678	1,284,752
Tires, Solid, Other	52,235	23,607	268,837	223,718	1,838,120	1,186,654	1,703,815	4,200,261	.....	.....
Tire Sundries and Repair Materials, camel back, lbs.	.....	81,336	911,982	231,948	730,904	184,925	1,795,595	453,777	6,537,544	1,722,686
Tire Sundries and Repair Materials, Other, lbs.	.....	227,205	1,794,352	1,110,542	2,650,921	1,495,993	2,633,709	1,411,183	5,922,499	3,205,636
Total	.....	$518,992,536	.....	$440,291,878	.....	$774,487,925	.....	$678,241,352	.....	$642,004,945

*—For all uses. †—First seven months of 1943. Included with Other Parts for Replacement, n.e.s., for remainder of year and years 1944, 1945 and 1946.
‡—Machinery and Metals Division, Office of International Trade, Department of Commerce.

1946 Leading Automotive Export Markets*

by Country of Destination

Country	Passenger Cars Units	Passenger Cars Value
Canada	18,769	$21,260,319
Union of South Africa	13,269	13,366,950
Mexico	10,600	11,234,337
Brazil	8,916	8,867,842
Sweden	7,561	7,628,326
Argentina	7,545	7,360,882
Belgium	6,709	6,587,433
Australia	4,418	3,781,396
Netherlands	3,609	3,598,255
Cuba	2,667	2,879,107
Venezuela	2,496	2,671,379
Philippine Republic	2,250	2,566,065
Egypt	2,172	2,478,997
Colombia	2,237	2,377,383
Switzerland	1,820	2,078,853
India & Dependencies	1,616	1,615,475
China	1,372	1,589,959
Chile	1,600	1,540,897
Portugal	1,116	1,290,720
Denmark	1,374	1,236,556
Total	102,116	$106,011,131
All Other Countries	14,528	16,216,077
Total—All Countries	116,644	$122,227,208

* Machinery and Metals Div., Department of Commerce.

Country	Trucks† Number	Trucks† Value
Mexico	20,177	$28,265,912
China	9,224	22,958,530
Brazil	18,050	21,610,891
Canada	7,760	14,152,703
Venezuela	8,385	12,413,007
Argentina	9,773	11,768,576
Sweden	8,753	9,236,633
Colombia	5,747	7,767,148
Union of South Africa	8,029	7,709,667
Denmark	7,467	7,433,163
Philippine Republic	5,706	7,233,680
Chile	3,538	4,900,598
Belgium	4,457	4,621,941
Cuba	3,641	4,482,349
Portugal	2,743	3,351,462
Peru	2,791	3,471,958
Australia	3,158	3,146,577
Total—Leading Countries	129,399	$174,524,795
All Other Countries	36,548	48,004,904
Total—All Countries	165,947	$222,529,699

†—Does not include buses.

THE table below summarizes the tabulation of "Trucks in Use by Make, by State and Year of Manufacture" shown on pages 100 to 107 inclusive.

1946 U. S. Exports of New Cars by Continental Divisions*

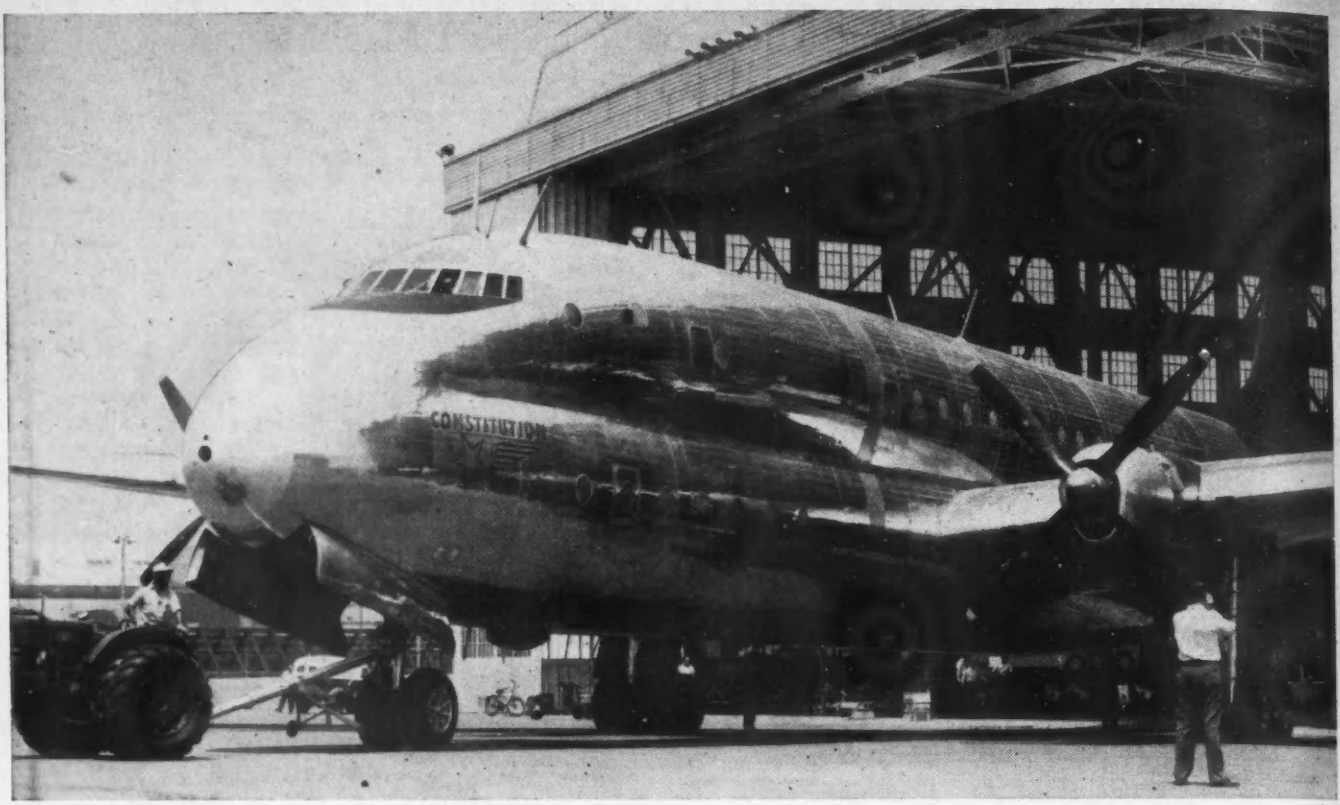
Continent	Number	Value
North America	34,848	$38,421,760
South Africa	25,610	25,773,049
Europe	25,015	25,556,410
Asia	9,248	10,561,979
Oceania	4,527	3,912,930
Africa	17,396	18,001,070
Total	116,644	$122,227,198

* Office of International Trade, Department of Commerce.

Summary of Trucks in Use by Makes and Year of Manufacture

(As of July 1, 1946)

	July 1 1946 Total	1946	1945	1944	1943	1942	1941	1940	1939	1938	1937	1936	1935	1934	1933	Prior to 1933	Yr. Not Given
Autocar	20,203	1,412	2,175	1,175	87	617	2,511	1,575	1,758	1,318	1,725	1,156	664	867	664	2,373	128
Brockway	18,156	1,109	2,053	1,167	57	472	2,420	1,469	1,738	1,389	1,578	1,477	773	644	297	1,441	74
Buick	16,416	131	45	40	11	390	807	739	585	558	687	592	377	509	441	10,348	156
Cadillac	3,852	51	6	5	2	184	671	228	183	129	206	175	97	73	76	1,721	45
Chevrolet	1,490,093	57,407	33,489	17,117	1,339	94,234	211,017	171,385	137,361	94,968	159,476	146,167	89,672	75,049	39,282	150,442	11,688
Diamond T	54,744	2,194	3,204	1,880	112	1,576	6,634	5,709	4,736	3,882	6,672	5,926	3,881	2,640	1,799	3,454	445
Divco	14,044	1,335	1,517	239	37	772	2,695	1,648	1,477	1,148	1,025	834	321	203	147	506	140
Dodge	542,977	46,896	19,347	8,071	508	36,766	82,168	55,550	45,705	30,938	52,160	68,433	34,684	23,432	9,727	23,161	5,431
Federal	18,309	1,523	2,212	795	140	814	1,534	1,289	1,218	1,019	1,500	1,676	1,034	857	423	1,797	478
Ford	1,584,465	58,903	45,594	19,428	2,669	70,873	187,195	138,502	103,415	81,279	152,946	143,257	106,497	75,442	26,526	355,536	16,403
G.M.C.	249,175	5,270	13,661	7,428	1,217	22,698	46,841	35,184	26,978	15,902	35,045	17,715	5,279	4,046	1,870	7,294	2,747
Indiana	4,457	23	34	35	28	23	80	157	237	326	916	1,001	387	343	226	605	36
International	569,076	27,753	26,412	14,839	1,675	25,791	89,486	71,572	59,962	51,768	56,090	54,052	33,739	15,316	9,478	26,440	4,701
Mack	73,115	3,109	5,114	3,092	394	3,796	10,582	7,631	6,700	4,327	5,536	3,728	1,646	1,510	1,105	14,415	610
Packard	7,813	59	14	8	10	264	708	680	531	444	815	543	307	160	112	3,046	112
Plymouth	68,697	1,106	57	76	52	1,845	12,159	10,477	9,153	6,723	13,056	4,314	2,053	2,021	1,628	3,368	609
Pontiac	9,078	198	10	14	8	542	1,243	1,140	654	364	667	588	469	318	429	2,365	69
Reo	32,338	3,308	2,771	321	53	1,108	1,838	399	910	2,694	3,206	2,293	2,681	1,793	830	7,598	535
Stewart	4,576	37	16	8	3	44	78	45	89	430	797	775	406	282	236	1,308	22
Studebaker	39,293	6,866	2,494	968	401	2,895	5,868	1,412	2,024	1,825	4,516	2,088	1,070	765	624	5,153	324
White	67,831	3,470	6,880	3,725	1,285	4,377	10,239	5,512	4,300	3,485	5,407	4,819	2,556	2,421	724	7,946	685
Willys-Ov-Wh	31,768	12,537	2,136	344	390	1,683	2,138	2,492	1,251	1,790	1,173	1,581	1,036	116	141	2,622	356
Yellow	14,106	117	316	329	55	1,242	1,776	1,676	821	1,123	1,568	1,656	867	409	157	1,841	153
Miscellaneous	134,212	6,579	5,624	3,130	930	6,462	11,171	8,830	7,073	6,116	9,943	8,143	5,177	3,946	2,725	41,964	6,998
Totals	5,068,792	241,393	175,181	84,234	11,463	279,448	691,859	525,101	418,857	313,945	516,530	472,989	295,673	213,164	99,667	676,744	52,844



Aircraft Production

Airplanes, Seaplanes and Amphibians, 1919-1946

	Civil‡	Military‡	Total†	Value†
1919	.....	.....	662	$8,046,468
1921	.....	.....	302	4,133,108
1923	.....	.....	587	7,737,069
1925	268	447	789	6,673,659
1926	604	532	1,186	8,871,027
1927	1,565	621	1,995	14,504,999
1928	3,542	1,219	4,761	.....
1929	5,357	677	6,631	51,508,120
1930	1,937	747	2,684	.....
1931	1,582	812	2,468	21,790,000
1932	549	593	1,142	.....
1933	591	466	1,179	15,859,995
1934	772	437	1,209	.....
1935	1,109	459	1,365	17,454,331
1936	1,559	1,141	2,700	.....
1937	2,281	949	3,100	38,664,153
1938	1,823	1,800	3,623	.....
1939	3,770	2,141	5,911	75,872,587
1940	6,785	6,019	12,871	146,000,000
1941	6,844	19,433	26,277	819,000,000
1942	985	47,836	48,821	2,762,000,000
1943	.....	85,898	85,898	6,696,000,000
1944	.....	96,318	96,318	9,233,000,000
1945	2,047	47,714	49,761	5,141,000,000
1946	34,874	1,330	36,204	362,772,192

† Sources: Odd years 1919 through 1939, as reported by Census of Manufactures. Other years, various sources. Total units produced 1940-1945 as reported by Civil Aeronautics Administration. Value of airframes 1940-1945, Department of Commerce.

* Partly estimated. ‡ Do not add up to totals shown because of difference in sources.

Note: The values of engines, propellers and power plant accessories installed in the aircraft are not included in the value of the aircraft reported for 1931 and subsequent years.

1946 Shipments of Complete Aircraft and Other Products of Aircraft Plants*

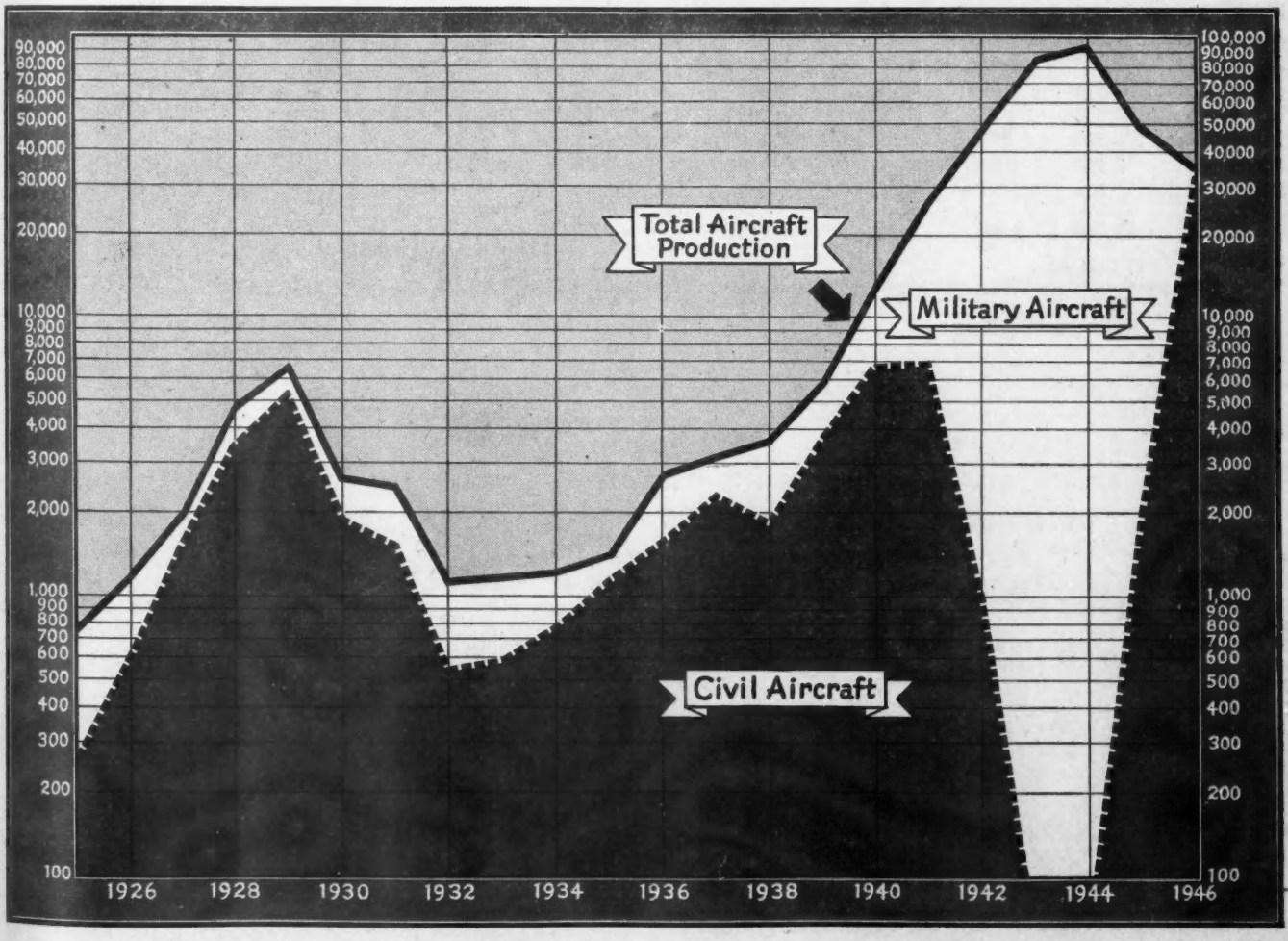
In Units and Their Value

PRODUCT	Jan.	Feb.	Mar.	Apr.	May	June	Total 6 Mos.
Complete Aircraft							
For U. S. Military							
Number of Planes	94	101	135	92	125	60	607
Value	$13,630,673	11,007,956	15,922,789	27,765,612	20,159,535	11,371,877	99,858,442
For Other than Military							
Number of Planes	1,227	1,252	2,019	2,327	3,073	3,431	13,329
Value	$7,628,653	12,427,122	13,666,253	17,267,250	24,351,251	21,053,777	96,592,306
Total—Planes	1,321	1,353	2,154	2,419	3,198	3,491	13,936
Total—Value	$21,457,326	23,435,078	29,589,042	45,032,862	44,510,786	32,425,654	196,450,748
Conversions							
Number of Planes	13	30	24	23	31	44	165
Value	$1,113,100	2,690,655	2,916,057	3,821,322	5,204,000	4,517,990	20,263,124
Airframe Spare Parts							
For U. S. Military—Value	$4,035,990	2,483,403	2,974,869	3,416,321	1,895,363	2,672,476	17,478,422
For Other than Military—Value	$1,198,826	1,225,926	878,931	1,551,649	1,737,653	1,950,395	8,543,380
Total—Parts Value	$5,234,816	3,709,329	3,853,800	4,967,970	3,633,016	4,622,871	26,021,802
All Other Products							
Modifications—Value	$1,295,945	1,239,025	1,534,072	330,541	388,113	411,204	8,476,936
Aircraft Products—Value				944,325	1,190,608	1,143,103	
Non-aircraft Products—Value	758,042	2,526,068	2,017,182	1,605,878	1,165,203	2,369,199	10,441,670

	Jul.	Aug.	Sep	Oct.	Nov.	Dec.	Total 12 Mos.
Complete Aircraft							
For U. S. Military							
Number of Planes	64	107	139	168	133	112	1330
Value	$10,191,425	9,738,385	22,324,211	17,356,781	13,438,853	19,064,158	191,972,265
For Other than Military							
Number of Planes	3,388	4,698	4,090	4,500	2,960	1,909	34,874
Value	$10,541,325	12,692,061	14,730,377	14,593,797	15,280,889	6,359,202	170,799,937
Total—Planes	3,452	4,805	4,229	4,668	3,093	2,021	36,204
Total—Value	$20,732,750	22,430,446	37,054,588	31,950,578	28,719,722	25,433,360	362,772,192
Conversions							
Number of Planes	45	45	29	27	17	17	345
Value	$4,821,822	5,879,157	4,415,234	3,170,500	936,300	1,029,602	40,515,539
Airframe Spare Parts							
For U. S. Military—Value	$2,258,263	1,738,420	2,327,267	1,950,171	2,427,296	3,591,641	31,771,490
For Other than Military—Value	$1,318,371	1,515,815	1,834,868	1,419,480	1,448,170	1,635,313	17,715,397
Total—Parts Value	$3,576,634	3,254,235	4,162,135	3,369,651	3,875,466	5,226,954	49,486,877
All Other Products							
Modifications—Value	$394,403	166,140	88,975	37,134	12,258	1,013,113	14,918,256
Aircraft Products—Value	$1,626,369	644,516	1,258,097	602,545	597,770		
Non-aircraft Products—Value	$2,048,716	2,407,747	2,496,723	4,102,512	3,233,085	3,046,404	27,776,857

*—Industry Division—Bureau of the Census and Civil Aeronautics Administration.

CIVIL AND MILITARY AIRCRAFT PRODUCTION, 1925-1946



1946 Civil Aircraft Shipments by Number of Engines*

	1 Engine	2 and 4 Engines	Total Planes
January	1,187	40	1,227
February	1,204	48	1,252
March	1,969	50	2,019
April	2,279	48	2,327
May	3,001	72	3,073
June	3,381	50	3,431
July	3,363	25	3,388
August	4,673	25	4,698
September	4,052	38	4,090
October	4,475	25	4,500
November	2,927	33	2,960
December	1,896	13	1,909
Total	34,407	467	34,874

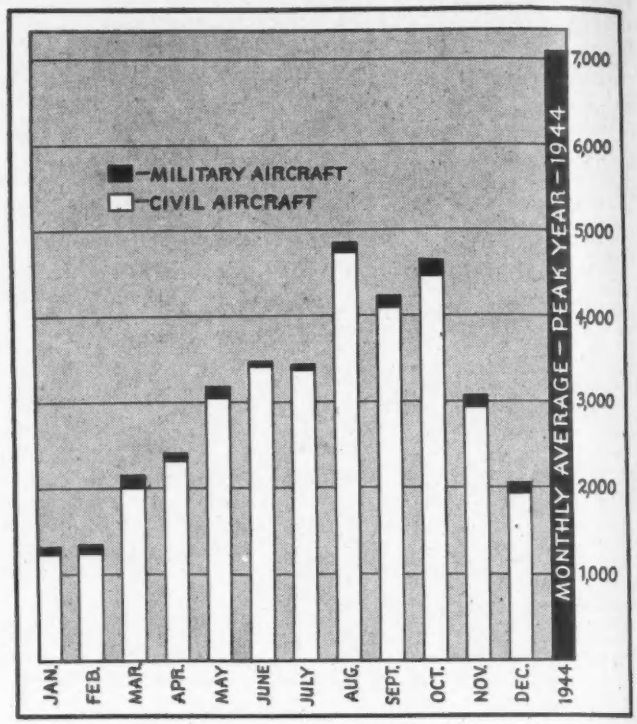
*—Bureau of the Census and Civil Aeronautics Administration.

1946 Civil Aircraft Shipments by Number of Places*

	2 Place	3 and 4 Places	5 and More Places	Total
January	1,172	...	55†	1,227
February	1,180	...	72†	1,252
March	1,919	...	100†	2,019
April	2,228	51	48	2,327
May	2,921	80	72	3,073
June	3,202	178	51	3,431
July	3,087	271	30	3,388
August	4,204	467	27	4,698
September	3,554	497	39	4,090
October	3,920	553	27	4,500
November	2,218	709	33	2,960
December	1,034	861	14	1,909
Total	30,639	3,667	568	34,874

†—Includes 3 and 4 places.
*—Bureau of the Census and Civil Aeronautics Administration.

1946 AIRCRAFT SHIPMENTS BY MONTHS



1946 Aircraft Engine Shipments and Other Products of Aircraft Engine Plants*

	Number	Value
Aircraft Engines		
For U. S. Military	2,585	$70,643,555
For All Other Customers	40,822	56,216,838
Total—All Engines	43,407	$126,860,393
Engine Parts and Accessories		
For U. S. Military	.....	$8,792,040
For All Other Customers	.....	24,133,700
All Other Products	.....	2,026,719
Total Value—All Products	.....	$161,812,852

*—Industry Division, Bureau of the Census.

1946 Civil Aircraft Shipments Classified by Total Rated Horsepower*

Month	1-74 Hp.	75-99 Hp.	100-399 Hp.	400 and Over, Hp.	Total Planes
January	1,047	†	140	40	1,227
February	939	†	265	48	1,252
March	1,479	†	490	50	2,019
April	1,675	552	52	48	2,327
May	2,093	820	88	72	3,073
June	2,147	1,042	191	51	3,431
July	1,915	1,076	366	31	3,388
August	2,637	1,363	670	28	4,698
September	2,235	1,059	754	42	4,090
October	2,441	1,207	825	27	4,500
November	1,483	614	830	33	2,960
December	398	626	871	14	1,909
Total	20,489	8,359	5,542	484	34,874

†—Included with 100-399 Hp. classification.
*—Bureau of the Census and Civil Aeronautics Administration.

1946 Aircraft Engine Shipments by Type and Rated HP*

By Rated Power	
0-249 hp. reciprocating	38,527
250 and over	4,880
Total	43,407
By Type	
Radial	4,073
Other †	39,334

†—Includes horizontally opposed, vee, and non-reciprocating.
*—Industry Division—Bureau of the Census.

The Historical Record of Aircraft Production 1940-1945

ON THIS and the following two pages are recorded the official record of aircraft and aircraft engine production during the war years 1940-1945. It was compiled by the Civil Aeronautics Administration from the official records of The Aircraft Resources Control Office which was organized during World War II to coordinate the aircraft procurement and production responsibilities of several Government agencies.

Military Aircraft Acceptances* Classified by Manufacturer

Manufacturers	1941	1942	1943	1944	1945	Total War Years†
Aeronca	29	829	1,276	305	.....	2,439
American Aviation	.....	.....	1	16	.....	17
Beech	255	1,924	2,610	1,979	613	7,381
Bell	927	1,972	4,978	3,749	1,967	13,593
Bellanca	3	.....	.....	39	.....	42
Boeing	2,407	3,681	5,145	4,609	2,136	17,958
Brewster	311	188	703	634	.....	1,836
Brunswick-Balke-Coll.	.....	.....	25	5	.....	30
Budd	.....	.....	.....	17	.....	17
Canadian Car	.....	.....	29	487	308	834
Cessna	618	1,435	2,629	471	.....	5,353
Chance Vought	632	819	1,780	2,673	2,046	7,950
Columbia	.....	.....	13	198	119	330
Cons. Vultee	2,682	6,812	10,496	7,956	2,792	30,708
Colver	6	184	401	877	894	2,362
Curtiss	2,757	5,865	6,577	6,720	3,513	25,432
De Havilland	5	195	.....	.....	.....	200
Douglas	1,316	3,802	9,592	11,099	4,707	30,516
Eastern	.....	26	2,546	6,611	4,290	13,473
Engineering Research	1	.....	.....	.....	.....	1
Fairchild	963	1,878	2,070	1,097	109	6,117
A. G. A.	7	.....	.....	.....	.....	7
Fisher Body	.....	.....	.....	2	4	6
Fleet	.....	7	1,094	49	.....	1,150
Fleetwings	.....	1	23	8	.....	32
Ford	.....	24	1,291	3,990	1,486	6,791
Globe	.....	.....	268	332	.....	600
Goodyear	.....	.....	377	2,108	1,529	4,014
Grumman	426	2,274	4,404	6,325	4,038	17,467
Higgins	.....	.....	.....	2	.....	2
Howard	6	30	617	179	.....	832
Interstate	.....	18	247	175	.....	440
Kellet	.....	.....	5	.....	1	6
Lockheed	1,424	2,540	5,235	5,855	2,821	17,875
Martin	547	1,430	3,509	2,309	991	8,786
Mc Donnell	.....	.....	.....	30	.....	30
Nash-Kelvinator	.....	.....	.....	5	214	219
Naval Aircraft	611	318	98	97	19	1,143
Noorduyn	6	441	1,223	500	86	2,256
North American	2,552	6,033	9,106	14,858	8,219	40,768
Northrop	24	291	141	449	219	1,124
Piper	44	1,855	1,319	1,904	819	5,941
Republic	170	634	4,155	6,986	3,657	15,602
Ryan	607	679	5	.....	66	1,357
St. Louis Aircraft	.....	1	288	61	.....	350
Sikorsky	.....	.....	14	115	26	155
Spartan	76	125	.....	.....	.....	201
Taylorcraft	24	529	1,161	226	.....	1,940
Timm	.....	15	247	.....	.....	262
Universal	.....	19	.....	.....	.....	19
Vega	25	981	.....	.....	.....	1,006
Vickers	.....	.....	.....	201	25	226
Waco	2	1	.....	.....	.....	3
Total	19,433	47,836	85,898	98,318	47,714	297,199

*—Civil Aeronautics Administration, Department of Commerce.

Military Aircraft Acceptances and Their Airframe Weights, 1940-1945

Month	1940 Number Accepted	1940 Airframe Weight† (lb-Millions)	1940 Average Weight per Airframe†	1941 Number Accepted	1941 Airframe Weight† (lb-Millions)	1941 Average Weight per Airframe†	1942 Number Accepted	1942 Airframe Weight† (lb-Millions)	1942 Average Weight per Airframe†
January	254	1.331	5,240	1,013	3.457	3,412	2,978	13.388	4,495
February	257	1.261	4,097	980	4.082	4,165	3,092	15.291	4,945
March	296	1.327	4,486	1,133	4.486	3,959	3,493	17.784	5,091
April	402	1.471	3,659	1,384	5.941	4,293	3,500	17.739	5,068
May	450	1.920	2,267	1,339	5.626	4,201	3,983	20.861	5,237
June	553	2.197	3,974	1,479	6.087	4,115	3,736	21.556	5,769
July	574	2.285	3,981	1,459	5.880	4,030	4,107	23.993	5,841
August	547	1.958	3,579	1,850	7.657	4,138	4,274	25.224	5,902
September	541	1.643	3,036	1,926	8.148	4,230	4,301	27.769	6,456
October	625	2.095	3,352	2,282	9.243	4,050	4,064	25.933	6,381
November	682	2.422	3,551	2,127	8.549	4,019	4,815	30.639	6,363
December	838	3.197	3,815	2,461	12.266	4,984	5,493	35.772	6,512
Total	6,019	23.107	3,839‡	19,433	81.422	4,189‡	47,836	275.949	5 768‡

Month	1943 Number Accepted	1943 Airframe Weight† (lb-Millions)	1943 Average Weight per Airframe†	1944 Number Accepted	1944 Airframe Weight† (lb-Millions)	1944 Average Weight per Airframe†	1945 Number Accepted	1945 Airframe Weight† (lb-Millions)	1945 Average Weight per Airframe†
January	5,013	31.842	6,351	8,788	78.738	8,959	6,531	72.235	11,060
February	5,450	37.448	6,871	8,759	81.356	9,288	6,294	71.734	11,397
March	6,258	43.164	6,897	9,113	89.020	9,768	7,035	79.132	11,248
April	6,471	47.568	7,350	8,329	82.310	9,882	6,410	73.751	11,505
May	7,086	52.161	7,361	8,902	89.632	10,068	6,350	71.602	11,275
June	7,094	53.401	7,527	8,044	84.116	10,456	5,785	65.219	11,273
July	7,371	55.736	7,561	7,998	80.228	10,031	4,729	52.995	11,206
August	7,611	59.422	7,807	7,932	79.426	10,013	2,868	34.891	12,165
September	7,596	61.249	8,063	7,589	79.157	10,430	765	11.915	15,575
October	8,360	66.650	7,972	7,425	75.236	10,132	457	3.601	7,879
November	8,787	71.304	8,114	6,746	71.587	10,611	248	1.653	6,665
December	8,801	74.712	8,489	6,693	71.601	10,697	242	1.803	7,450
Total	85,898	654.657	7,621‡	96,318	962.406	9,991‡	47,714	540.531	11,328‡

†—Excluding spares. ‡—Yearly Average.
*—Civil Aeronautics Administration, Department of Commerce.

Military Aircraft Acceptances*

Classified by Type of Airplane

Type of Aircraft	1940 Acceptances Number	1940 Acceptances Per Cent of Total	1940 Airframe Weight Pounds† (Millions)	1940 Airframe Weight Per Cent of Total	1940 Average Weight per Airframe	1941 Acceptances Number	1941 Acceptances Per Cent of Total	1941 Airframe Weight Pounds† (Millions)	1941 Airframe Weight Per Cent of Total	1941 Average Weight per Airframe
Bombers										
4-Engine	60	1.0	1.181	5.1	19,683	317	1.7	6.783	8.3	21,334
2-Engine	953	15.8	7.421	32.1	7,787	3,249	16.7	31.930	39.2	9,828
1-Engine	178	3.0	.580	2.5	3,258	549	2.8	2.191	2.7	3,991
Total—Bombers	1,191	19.8	9.182	39.7	7,709	4,115	21.2	40.884	50.2	9,935
Fighters										
2-Engine	12	0.2	.101	.4	8,417	206	1.0	1.545	1.9	7,500
1-Engine	1,673	27.8	5.385	23.3	3,219	4,210	21.7	14.874	18.3	3,533
Total—Fighters	1,685	28.0	5.486	23.7	3,256	4,416	22.7	16.419	20.2	3,718
Transports										
4-Engine	8	0.1	.312	1.4	39,000	6	.....	.234	0.3	39,000
2-Engine	216	3.6	2.050	8.9	9,404	359	1.9	3.151	3.9	8,777
1-Engine	64	1.1	.123	0.5	1,922	167	0.9	.382	0.4	2,287
Total—Transports	290	4.8	2.485	10.8	8,569	532	2.8	3.767	4.6	7,081
Trainers										
2-Engine	16	0.3	.053	0.2	3,313	854	4.4	2.452	3.0	2,871
1-Engine	717	11.9	1.887	8.2	2,632	2,426	12.5	6.375	7.8	2,628
Basic	763	12.7	2.138	9.3	2,802	1,841	9.4	3.867	4.7	2,100
Primary	1,235	20.5	1.526	6.6	1,236	4,252	21.9	5.411	6.7	1,273
Total—Trainers	2,731	45.4	5.604	24.3	2,052	9,373	48.2	18.105	22.2	1,932
All Other Planes										
Reconnaissance	121	2.0	.348	1.5	2,876	727	3.7	1.888	2.3	2,597
Communication	1	.....	.002	.....	2,000	270	1.4	.359	.5	1,330
Special Purpose	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total—Others	122	2.0	.350	1.5	2,869	997	5.1	2.247	2.8	2,254
Total—All Airplanes	6,019	100.0%	23.107	100.0%	3,839	19,433	100.0%	81.422	100.0%	4,190

Type of Aircraft	1942 Acceptances Number	1942 Acceptances Per Cent of Total	1942 Airframe Weight Pounds† (Millions)	1942 Airframe Weight Per Cent of Total	1942 Average Weight per Airframe	1943 Acceptances Number	1943 Acceptances Per Cent of Total	1943 Airframe Weight Pounds† (Millions)	1943 Airframe Weight Per Cent of Total	1943 Average Weight per Airframe
Bombers										
4-Engine	2,615	5.5	62.039	22.5	23,724	9,615	11.2	232.216	35.5	24,151
2-Engine	7,247	15.1	84.100	30.5	11,605	10,361	12.1	135.365	20.7	13,065
1-Engine	2,765	5.8	16.358	5.9	5,915	9,379	10.9	55.376	8.4	5,904
Total—Bombers	12,627	26.4	162.495	58.9	12,869	29,355	34.2	422.957	64.6	14,408
Fighters										
2-Engine	1,323	2.8	10.462	3.8	7,908	2,246	2.6	18.350	2.8	8,170
1-Engine	9,446	19.7	38.342	13.9	4,059	21,742	25.3	103.507	15.8	4,761
Total—Fighters	10,769	22.5	48.804	17.7	4,532	23,988	27.9	121.857	18.6	5,080
Transports										
4-Engine	70	0.1	1.589	0.6	22,414	183	0.2	4.166	0.6	22,765
2-Engine	1,582	3.3	16.082	5.8	10,153	5,981	7.0	49.692	7.6	8,308
1-Engine	332	0.7	.618	0.2	1,861	848	1.0	1.644	0.3	1,939
Total—Transports	1,984	4.1	18.249	6.6	9,218	7,012	8.2	55.502	8.5	7,915
Trainers										
2-Engine	3,847	8.1	12.269	4.4	3,189	3,359	3.9	14.340	2.2	4,269
1-Engine	4,431	9.3	11.685	4.2	2,637	5,472	6.4	14.429	2.2	2,637
Basic	4,133	8.6	8,679	3.2	2,100	4,072	4.7	8.555	1.3	2,101
Primary	5,220	10.9	6,657	2.4	1,275	7,036	8.2	9.734	1.5	1,383
Total—Trainers	17,631	36.9	39.290	14.2	2,228	19,939	23.2	47.058	7.2	2,360
All Other Planes										
Reconnaissance	1,468	3.1	5.123	1.9	3,490	734	0.8	3.879	0.6	5,285
Communication	3,174	6.6	1.869	0.7	589	4,377	5.1	2.958	0.5	676
Special Purpose	183	0.4	.119	.....	650	493	0.6	.486	.....	905
Total—Others	4,825	10.1	7.111	2.6	1,474	5,604	6.5	7.283	1.1	1,300
Total—All Airplanes	47,836	100.0%	275.949	100.0%	5,769	85,898	100.0%	654.657	100.0%	7,621

Type of Aircraft	1944 Acceptances Number	1944 Acceptances Per Cent of Total	1944 Airframe Weight Pounds† (Millions)	1944 Airframe Weight Per Cent of Total	1944 Average Weight per Airframe	19[illegible] Acceptances Number	19[illegible] Acceptances Per Cent of Total	19[illegible] Airframe Weight Pounds† (Millions)	19[illegible] Airframe Weight Per Cent of Total	19[illegible] Average Weight per Airframe
Bombers										
4-Engine	16,331	17.0	415.940	43.2	25,469	6,685	14.4	228.308	42.2	33,257
2-Engine	10,056	10.4	135.855	14.1	13,507	4,454	9.3	65.658	12.2	14,741
1-Engine	8,614	8.9	57.442	6.0	6,668	5,173	10.9	37.277	6.9	7,206
Total—Bombers	35,003	36.3	609.237	63.3	17,405	16,492	34.6	331.243	61.3	20,085
Fighters										
2-Engine	4,733	4.9	42.904	4.5	9,065	2,125	4.5	20.828	3.9	9,801
1-Engine	34,140	35.5	172.633	17.9	5,057	19,571	41.0	104.943	19.4	5,362
Total—Fighters	38,873	40.4	215.537	22.4	5,545	21,696	45.5	125.771	23.3	5,797
Transports										
4-Engine	544	0.6	13.506	1.4	24,827	749	1.6	20.702	3.8	27,640
2-Engine	7,900	8.2	96.846	10.1	12,259	3,675	7.7	54.032	10.0	14,703
1-Engine	1,390	1.4	3.262	0.3	2,347	205	0.4	.646	0.1	3,151
Total—Transports	9,834	10.2	113.614	11.8	11,553	4,629	9.7	75.380	13.9	16,284
Trainers										
2-Engine	1,237	1.3	4,786	0.5	3,869	.....	.....	.....	.....	.....
1-Engine	3,612	3.8	9.537	1.0	2,640	1,237	2.6	3.340	0.6	2,700
Basic	1,283	1.3	2.694	0.3	2,100	.....	.....	.....	.....	.....
Primary	1,445	1.5	2.042	0.2	1,413	72	0.1	.098	.....	1,361
Total—Trainers	7,577	7.9	19.059	2.0	2,515	1,309	2.7	3.438	0.6	2,626
All Other Planes										
Reconnaissance	259	0.3	1.032	0.1	3,985	531	1.1	2.092	0.4	3,940
Communication	3,691	3.8	2.648	0.3	717	2,163	4.5	1.814	0.3	839
Special Purpose	1,081	1.1	1.279	0.1	1,183	894	1.9	.793	0.2	887
Total—Others	5,031	5.2	4.959	0.5	986	3,588	7.5	4.699	0.9	1,310
Total—All Airplanes	96,318	100.0%	962.406	100.0%	9,992	47,714	100.0%	540.531	100.0%	11,329

*—Civil Aeronautics Administration, Department of Commerce. †—Excludes weight of spares.

Aircraft Engine Shipments and HP Produced, 1940-1945*

Month	1940 Number of Engines	1940 Total Horsepower† (Millions)	1940 Average Horsepower per Engine	1941 Number of Engines	1941 Total Horsepower† (Millions)	1941 Average Horsepower per Engine	1942 Number of Engines	1942 Total Horsepower† (Millions)	1942 Average Horsepower per Engine
January	856	.646	755	3,181	2.259	710	7,257	7.389	1,018
February	886	.647	747	3,630	2.509	691	7,404	7.608	1,028
March	1,171	.789	657	3,918	2,901	740	9,483	9.228	973
April	1,358	.779	574	4,285	3.164	742	10,131	10.234	1,010
May	1,194	.734	615	4,119	3.196	776	10,931	11.152	1,020
June	1,709	1.064	623	4,407	3.476	789	11,735	12.165	1,037
July	2,056	1.240	603	5,041	3.993	792	11,926	13.045	1,094
August	2,250	1.470	653	5,514	4.148	752	13,061	14.487	1,109
September	2,639	1.713	649	5,660	4.270	743	13,224	14.509	1,097
October	3,112	2.107	677	5,624	4.283	762	13,716	15.451	1,126
November	2,522	1.945	771	6,246	5.201	833	14,233	15.568	1,094
December	2,934	2.354	802	6,576	5.530	841	14,988	16.701	1,114
Total	22,667	15.468	682	58,181	44.930	772	138,089	147.535	1,068

Month	1943 Number of Engines	1943 Total Horsepower† (Millions)	1943 Average Horsepower per Engine	1944 Number of Engines	1944 Total Horsepower† (Millions)	1944 Average Horsepower per Engine	1945 Number of Engines	1945 Total Horsepower† (Millions)	1945 Average Horsepower per Engine
January	16,063	17.335	1,079	22,696	29.961	1,320	17,323	27.576	1,592
February	15,302	16.861	1,102	21,146	27.734	1,312	15,684	25.612	1,633
March	17,012	19.238	1,131	23,994	32.847	1,369	16,669	27.735	1,664
April	16,849	18.576	1,102	22,690	31.228	1,376	14,016	24.140	1,722
May	17,891	19.597	1,095	22,819	32.381	1,419	14,427	24.605	1,705
June	18,008	19.939	1,107	23,093	33.301	1,442	11,251	19.971	1,775
July	18,738	21.241	1,134	22,613	33.029	1,461	10,691	18.852	1,763
August	19,703	23.137	1,174	24,109	35.174	1,459	6,286	10.859	1,727
September	20,593	24.854	1,207	20,939	30.922	1,477	2,161	3.382	1,565
October	22,226	26.844	1,208	19,270	29.569	1,534	715	1.053	1,473
November	22,717	27.588	1,214	17,239	26.446	1,534	287	297	1,035
December	22,014	27.072	1,230	16,303	25.458	1,562	140	.125	893
Total	227,116	262.228	1,155	256,911	388.050	1,433	109,650	184.187	1,680

*—Civil Aeronautics Administration, Department of Commerce. †—Excludes Hp. of spare parts. Hp used is take-off horsepower.

Aircraft Engine Shipments*

By Manufacturer and by Years 1940-1945

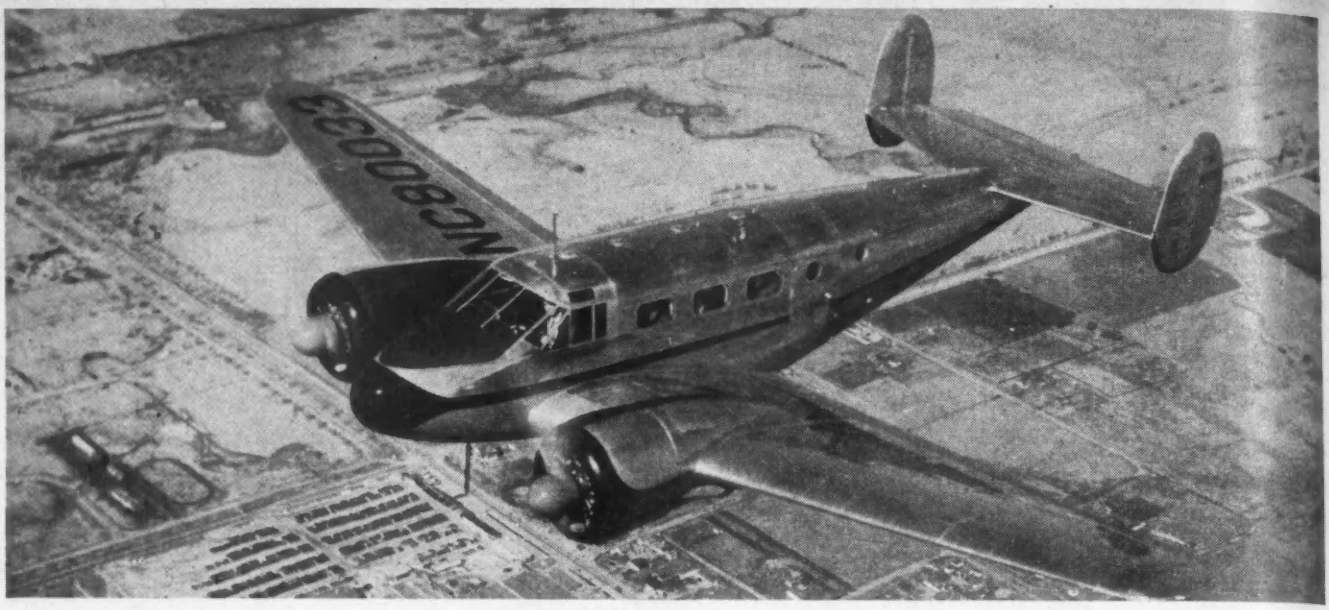
Manufacturer	1940	1941	1942	1943	1944	1945	Total War Years
Aircooled	.....	2,204	446	691	2,443	600	6,384
Allison	1,143	6,448	14,905	21,093	20,303	6,106	69,998
Buick	.....	.....	8,401	24,626	30,550	10,845	74,422
Chevrolet	.....	.....	4,058	23,415	27,528	5,768	60,769
Continental	4,452	6,577	8,326	8,626	6,610	1,668	36,259
Dodge	.....	.....	.....	.....	6,053	12,360	18,413
Ford	.....	284	6,403	13,337	24,197	13,436	57,637
General Electric	.....	.....	.....	.....	122	595	717
Jacobs	340	3,370	7,416	12,897	7,382	755	32,160
Kinner	509	896	1,479	433	.....	.....	3,317
Lycoming	2,979	4,439	5,336	7,488	3,452	1,878	25,572
Menasco	162	422	13	.....	.....	.....	597
Nash-Kelvinator	.....	.....	6	2,692	9,275	5,135	17,108
Naval Aircraft	172	557	320	353	.....	.....	1,402
Packard	.....	49	7,251	12,295	22,969	12,571	55,135
Pratt & Whitney	7,149	18,122	33,954	35,268	23,775	14,887	133,155
Ranger	377	1,243	3,580	6,722	2,346	97	14,365
Studebaker	.....	.....	6,091	22,926	27,920	6,852	63,789
Warner	214	826	372	608	361	.....	2,081
Waukesha	.....	.....	.....	25	20	.....	45
Wright	5,170	13,064	29,732	33,621	41,605	16,097	139,289
Total	22,667	58,181	138,089	227,116	256,911	109,650	812,614

*—Civil Aeronautics Administration, Department of Commerce.

Shipments of Aircraft and Airframe Spare Parts, by Plant Location—1946

	Mountain and Pacific States[1]			Southern States[2]			All other States[3]		
	Complete Aircraft		Airframe Spare Parts (value)	Complete Aircraft		Airframe Spare Parts (value)	Complete Aircraft		Airframe Spare Parts (value)
	Number of Planes	Value		Number of Planes	Value		Number of Planes	Value	
TOTAL FOR YEAR	820	$164,916,465	$20,057,291	9,003	$70,655,339	$7,992,374	26,381	$127,100,388	$21,437,212
January	26	7,992,679	2,745,416	182	4,557,815	514,164	1,113	8,906,832	1,975,236
February	55	12,705,989	2,088,261	339	3,320,450	282,103	959	7,408,639	1,358,985
March	75	14,505,934	1,699,200	583	5,430,481	558,603	1,496	9,652,627	1,595,997
April	66	27,383,856	2,046,241	617	9,282,683	1,102,484	1,736	8,366,323	1,619,245
May	73	23,412,516	1,609,892	777	8,034,775	720,465	2,348	13,083,495	1,302,659
June	30	17,004,731	2,092,388	924	5,486,577	853,324	2,537	9,934,346	1,677,159
July	10	5,478,939	1,327,467	854	5,095,170	780,490	2,588	10,158,641	1,468,677
August	24	2,431,146	866,557	1,228	5,711,883	875,446	3,553	14,287,417	1,512,232
September	73	16,990,798	1,584,491	1,262	6,441,563	1,011,071	2,894	13,622,227	1,566,573
October	129	11,293,783	1,162,550	1,158	7,780,786	452,852	3,361	12,876,009	1,754,249
November	123	13,089,291	1,108,698	699	5,140,833	329,562	2,271	10,489,598	2,437,206
December	136	12,626,803	1,726,130	380	4,372,323	531,810	1,505	8,434,234	2,969,014

[1] Includes Wyoming, Washington, and California.
[2] Includes Delaware, Maryland, North Carolina, Oklahoma, and Texas.
[3] Includes Connecticut, New York, Pennsylvania, Ohio, Illinois, Michigan, Iowa, Missouri, and Kansas.



Airports by Class and by Type, by States: Jan. 1, 1947*

STATE	TYPE OF OPERATION						SIZE CLASSIFICATION (1)					
	Commercial	Municipal	CAA Intermediate	Military (2)	All Others (3)	TOTAL	Sub. I (4)	I	II	III	IV and Over	Total Lighted
Alabama	21	16	2	31	5	75	3	21	18	12	21	20
Arizona	33	26	10	21	14	104	6	21	39	12	26	32
Arkansas	36	15	1	12	4	68	12	15	18	7	16	9
California	156	86	11	81	22	356	30	99	99	28	100	93
Colorado	33	34	2	8	3	80	8	25	30	5	12	13
Connecticut	15	9	1	0	0	25	1	15	0	4	5	7
Delaware	8	2	0	2	0	12	1	3	5	0	3	3
Dist. of Columbia	0	0	0	2	1	3	0	0	0	1	2	3
Florida	29	45	3	124	3	204	2	31	41	57	73	51
Georgia	30	26	9	35	3	103	10	21	21	16	35	40
Idaho	13	37	4	3	10	67	11	26	17	6	7	15
Illinois	76	19	5	21	9	130	11	42	58	10	9	21
Indiana	54	19	2	27	1	103	11	27	42	10	13	18
Iowa	64	34	4	2	1	105	18	45	33	3	6	15
Kansas	58	56	3	29	3	149	16	64	33	12	24	24
Kentucky	9	8	2	4	0	23	0	6	8	4	5	9
Louisiana	17	18	4	17	1	57	7	14	15	4	17	23
Maine	21	20	0		0	47	9	14	5	10	9	18
Maryland	24	5	1		1	39	3	13	9	5	9	5
Massachusetts	37	15	0	8	0	60	17	15	10	6	12	11
Michigan	52	95	0	11	5	163	8	75	52	13	15	21
Minnesota	31	43	1	0	0	75	10	34	20	4	7	9
Mississippi	17	23	6	14	1	81	4	13	15	15	14	19
Missouri	45	29	8	14	3	99	12	32	29	14	12	20
Montana	15	53	12	1	14	95	16	26	31	9	13	27
Nebraska	26	29	5	13	0	73	8	28	16	3	18	16
Nevada	15	9	9	11	2	46	4	11	7	6	18	19
New Hampshire	10	12		1	0	23	5	7	4	4	3	6
New Jersey	45	9	0	7	2	63	6	26	21	4	6	11
New Mexico	29	26	10	13	8	86	7	22	27	6	24	24
New York	136	40	4	13	6	199	54	79	27	20	19	34
North Carolina	84	23	1	25	0	133	33	45	19	15	21	16
North Dakota	11	30	6	0	0	47	3	18	17	3	6	13
Ohio	100	31	6	6	2	145	20	44	59	14	8	25
Oklahoma	61	50	3	34	1	149	19	55	40	12	23	28
Oregon	36	37	5	7	1	86	8	25	21	12	20	26
Pennsylvania	108	37	3	8	2	158	26	73	38	12	9	30
Rhode Island	4	1	0	3	0	8	4	0	0	2	2	2
South Carolina	15	22	2	20	2	61	6	16	12	6	21	15
South Dakota	16	25	1	5	0	47	1	23	13	2	8	6
Tennessee	12	14	7	4	1	38	2	4	15	7	10	18
Texas	172	123	23	88	11	417	35	102	137	47	96	100
Utah	6	22	8	3	2	41	1	10	11	8	11	19
Vermont	3	9	0	0	0	12	1	6	1	4	0	4
Virginia	40	20	3	19	7	82	7	31	20	8	16	18
Washington	36	49	3	16	0	111	13	31	27	8	32	29
West Virginia	20	10	2	1	0	33	9	6	11	4	3	7
Wisconsin	42	38	2	1	0	83	10	26	35	8	4	11
Wyoming	8	25	7	1	5	46	1	11	23	3	8	16
TOTAL	1929	1424	201	780	156	4490	509	1396	1249	485	851	1019

*Source of data—Civil Aeronautics Administration.
(1)—Class I airports are for private owners of smaller type aircraft; Class II, private owners of largest type aircraft and feeder transport aircraft; Class III, present day transport aircraft; Classes IV and Over, largest aircraft now in use and those planned for immediate future.
2)—Indicates Army, Navy, Army operated and Navy operated (latter two are municipal or commercial airports temporarily taken over by Army or Navy.)
(3)—Includes private and miscellaneous government airports.
(4)—Indicates airports which exist but do not come up to Class I standards.

14,000,000 Passengers Carried by Airlines in 1946

Operation Statistics of Domestic Air Lines*

(Operating in Continental United States)

(As of December 31 of each year)

	1939	1940	1941	1942	1943	1944	1945	1946†
Operating companies, number of	17	16	17	16	16	16	20	20
Personnel employed	10,509	15,800	18,984	(1)26,447	30,349	31,094	50,470	.....
Airplanes in service and reserve	265	358	359	179	194	279	421	676
Passenger seats per plane—average	14.63	16.52	17.41	17.60	17.61	17.53	18	24
Average speed, miles-per-hour	153	155	159	159	160	162	163	.....
Miles flown, revenue	82,571,523	108,800,436	133,022,679	110,102,860	103,601,443	142,234,034	218,189,133	305,082,000
Passengers carried, total	1,876,051	2,959,480	4,060,545	3,551,833	3,454,040	4,668,466	7,793,875	14,089,519
Passenger miles flown(2) (000 omitted)	749,787	1,147,445	1,491,735	1,481,976	1,642,597	2,264,282	3,554,714	6,067,000
Express and freight carried (pounds)	9,514,229	12,506,176	19,209,671	39,968,765	57,543,591	66,011,669	90,017,200	149,118,000
Mail carried (ton miles)	8,584,891	10,035,638	12,900,405	21,066,627	35,927,042	50,904,986	64,955,466	.....
Gasoline consumed, gallons	46,554,856	64,906,284	80,757,892	68,030,246	63,908,388	88,143,732	134,824,120	292,637,434
Oil consumed, gallons	726,507	1,087,208	1,258,983	989,103	878,923	1,238,941	1,709,566	3,477,840

*—Civil Aeronautics Administration. (1)—Estimated. (2)—One passenger one mile. †—Partly Estimated.

94% Increase in Commercial and Municipal Airports

Number of U. S. Airports and Landing Fields*

(As of December 31 of each year)

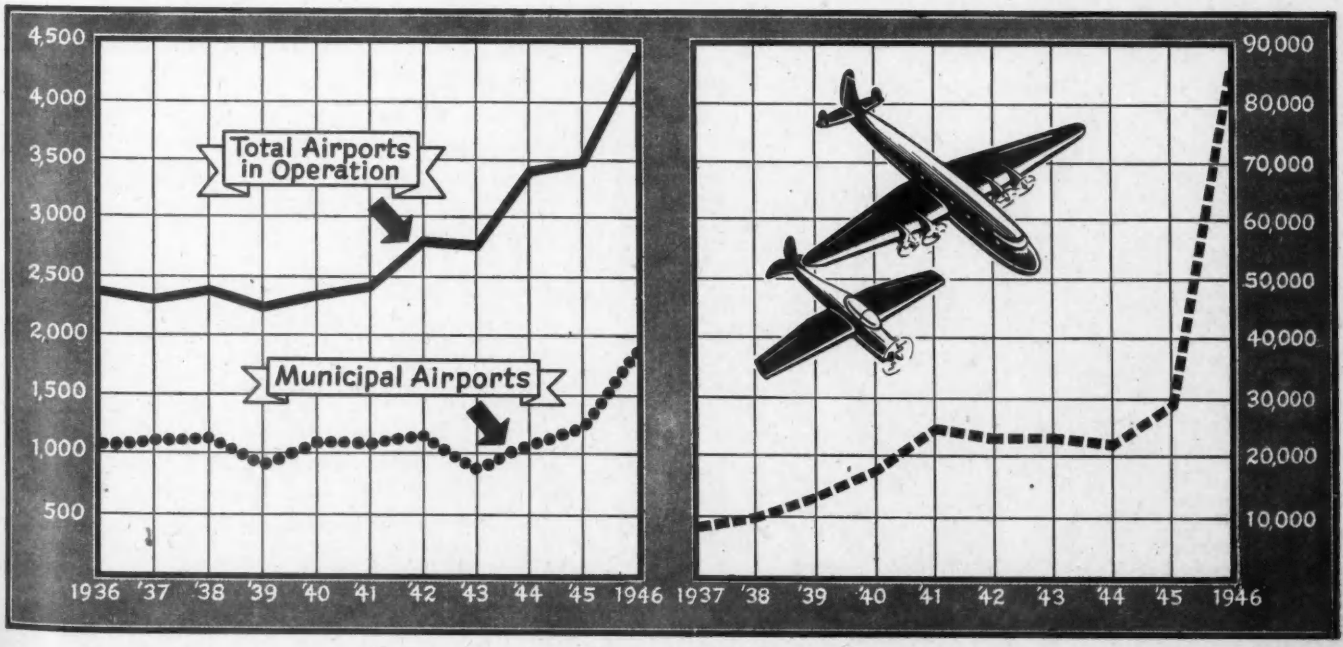
	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
Airports and landing fields										
Commercial	727	760	801	860	930	1,069	801	1,027	1,509	1,929
Municipal	1,053	1,092	963	1,031	1,086	1,129	914	1,067	1,220	1,424
Intermediate CAA—lighted	278	265	266	289	283	273	239	228	216	201
Intermediate CAA—unlighted	5	2	0	0	0	0	1	1	0	.....
Army, Navy, Marine Corps, reserve, private and miscellaneous airports	236	255	250	151	185	338	814	1,104	1,081	936
Total airports in operation	2,299	2,374	2,280	2,331	2,484	2,809	2,769	3,427	4,026	
Total lighted airports	720	719	735	776	662	700	859	964	1,007	4,490

* Civil Aeronautics Administration.

YEARLY TOTALS OF

AIRPORTS IN USE

CERTIFIED AIRCRAFT



Aeronautic Exports

U. S. Exports of Aeronautic Products, by Years, 1912-1946*

	Aircraft		Aircraft Engines		Parts, Accessories and Equipment	Total Aeronautic Exports
	Number	Value	Number	Value	Value	Value
1912	29	$105,805	.....	.....	.....	$105,805
1913	29	81,750	.....	.....	$25,802	107,552
1914	34	188,924	.....	.....	37,225	226,149
1915	152	958,019	.....	.....	583,427	1,541,446
1916	269	2,158,395	.....	.....	4,843,610	7,002,005
1917	135	1,001,542	.....	.....	3,133,903	4,135,445
1918	61	768,720	.....	.....	18,017,781	18,786,501
1919	44	215,300	.....	.....	3,249,226	3,464,526
1920	65	598,274	.....	.....	554,375	1,152,649
1921	48	314,940	.....	.....	157,608	472,548
1922	37	156,630	147	$72,819	265,481	494,930
1923	48	309,051	80	65,558	58,949	433,558
1924	59	412,738	146	219,609	165,926	798,273
1925	80	511,282	73	170,793	101,584	783,659
1926	50	303,149	297	573,732	150,329	1,027,210
1927	63	848,568	84	484,875	570,117	1,903,650
1928	162	1,759,653	179	664,826	1,240,244	3,664,723
1929	348	5,484,600	322	1,383,197	2,257,548	9,125,345
1930	321	4,819,669	376	1,634,985	2,363,456	8,818,110
1931	140	1,812,809	307	1,432,229	1,622,649	4,867,687
1932	280	4,358,967	2,356	1,517,682	1,756,421	7,946,533
1933	406	5,391,493	2,903	1,452,341	2,249,172	9,180,328
1934	490	8,195,484	1,009	4,458,701	4,860,567	17,522,938
1935	333	6,598,515	568	2,459,317	5,069,810	14,290,843
1936	527	11,601,893	933	5,182,469	6,060,483	23,143,203
1937	631	21,085,170	1,048	5,946,054	12,105,474	39,404,469
1938	876	37,977,924	1,309	7,899,844	21,948,982	68,227,689
1939	1,221	67,112,866	1,880	14,120,035	36,574,311	117,807,212
1940	3,531	196,265,646	4,986	49,873,823	65,732,004	311,871,473
1941	6,011	422,763,907	8,144	81,692,907	122,472,538	626,929,352
1942	14,603	882,247,253	14,603	160,575,340	352,123,928	1,394,946,521
1943	21,803	1,215,848,135	21,803	243,649,570	692,702,113	2,152,199,818
1944	25,751	1,578,004,313	25,751	335,081,201	1,034,571,203	2,947,656,717
1945	9,351	650,308,732	9,351	126,209,929	429,567,273	1,206,085,934
1946	2,302	65,257,749	2,490	11,851,372	40,826,129	114,935,250

*Machinery and Metals Section, Office of International Trade, Department of Commerce.

U. S. Exports of Aeronautic Products*

Segregated by Type of Product for 1942-1945

	1943		1944		1945		1946	
	Number	Value	Number	Value	Number	Value	Number	Value
Airplanes, civil	.....	.....	.....	.....	.....	.....	.....	.....
Bombers	4,634	$682,462,742	5,098	$870,299,471	1,547	$274,938,100	2,243	$64,200,532
Fighters	5,687	376,477,847	6,128	424,536,378	3,844	242,497,660	.....	.....
Communication	424	84,819,185	737	12,199,830	42	1,812,751	16	12,800
Transports	669	5,035,711	1,732	197,910,234	1,238	116,472,444	2	215,932
Trainers	2,439	67,052,650	2,768	72,958,400	550	14,587,777	46	828,495
Barrage balloons	2	1,511	7,262	54,873,560	10	750	.....	.....
Gliders, lighter-than-air craft	42	1,188,339	680	13,291,021	59	1,041,174	54	33,493
Engines for aircraft	21,803	213,649,570	25,751	335,081,201	9,351	126,209,929	2,490	11,851,372
Engine Parts and Accessories (1)	.....	40,451,037	.....	36,007,107	.....	17,792,477	.....	2,432,882
Engine Parts, other	.....	126,189,612	.....	147,542,402	.....	69,703,731	.....	10,372,784
Parachutes	16,622	1,126,388	94,391	2,892,829	31,747	631,709	74,884	328,629
Parachute harness, fittings, etc.	.....	54,558	.....	2,374,117	.....	390,268	.....	52,227
Parachute parts and fittings, other	.....	633,794	.....	1,434,183	.....	261,984	.....	20,600
Instruments and parts	.....	105,631,508	.....	232,657,500	.....	149,394,596	.....	2,189,216
Propellers	23,006	47,775,757	35,885	51,306,155	15,688	21,318,969	1,594	1,007,235
Propeller parts and accessories	.....	30,776,528	.....	33,173,201	.....	14,400,615	.....	767,593
Life jackets and life rafts	1,568	370,983	1,206	186,710	12,748	200,924	1,364	49,497
Bombrack and other controls	.....	31,586,009	.....	63,501,550	.....	14,758,164	.....	892,895
Bomb sights	5,432	26,738,156	10,452	31,609,327	2,800	6,645,545	.....	.....
Parts and accessories, other, n.e.s.	.....	270,589,549	.....	234,235,481	.....	77,762,978	.....	16,356,412
Radio ground equipment	.....	2,360,378	.....	125,034,775	.....	53,716,716	2,119	3,272,676
Pilot Training apparatus and parts	687	6,665,581	439	3,938,209	76	1,091,985	.....	.....
Photographs and blueprints	.....	382,603	.....	94,939	.....	428,331	.....	.....
Printed matter, n.e.s.	.....	179,822	.....	418,137	.....	26,357	.....	.....
Total—Exports	.....	$2,152,199,818	.....	$2,947,656,717	.....	$1,206,085,934	.....	$114,935,250

(1)—Including carburetors, cowls, crankcases, cylinders, generators, magnetos, spark plugs, starters, superchargers and valves for use in aircraft engines.
*—Machinery and Metals Section, Office of International Trade, Department of Commerce.

Current Passenger Car Price, Weight and Body Table

Following are two sets of car prices, at factory, as of the end of January, 1947. The list price which does not include federal taxes or handling charges is compared with the suggested delivered price at factory which includes federal taxes and handling charges where noted. All prices are for cars with standard equipment. State or local taxes, transportation and finance charges and optional equipment are extra.

BODY, MAKE AND MODEL	List Prices at Factory without Federal Taxes	Federal Taxes	Delivered Price at Factory including Federal Taxes	Shipping Weight
BUICK				
Series 40				
Sedan, 4d.	$1468	$87	$1555	3720
Sedanet, 2d.	1413	84	1497	3670
Series 50				
Sedan, 4d.	1689	98	1787	3910
Conv. Coupe	2052	117	2169	4050
Sedanet, 2d.	1612	94	1706	3795
Estate Wagon	2422	137	2559	4170
Series 70				
Sedan, 4d.	1949	111	2060	4385
Conv. Coupe	2324	131	2455	.....
Sedanet, 2d.	1857	107	1964	.....
CADILLAC*				
Series 61				
Club Coupe	1945	134	2079	4270
Tour. Sedan	2060	143	2203	4270
Series 62				
Club Coupe	2161	150	2311	4385
Conv. Coupe	2567	174	2741	4385
Tour. Sedan	2230	156	2386	4385
Series 60				
Tour. Sedan	2924	202	3126	4500
Series 75				
Tour. Sedan, 5p.	4065	275	4340	5000
Sedan, 7p.	4239	278	4517	5000
Imperial, 7p.	4422	289	4711	5000
Bus. Sedan, 9p.	3930	265	4195	5000
Bus. Imperial, 9p.	4111	277	4388	5000
CHEVROLET				
Master DeLuxe				
Town Sedan	1072	80	1152	3170
Sport Sedan	1123	82	1205	3175
Bus. Coupe	1022	76	1098	3105
Sport Coupe	1059	78	1137	3130
Special DeLuxe				
Town Sedan	1143	82	1225	3190
Sport Sedan	1194	86	1280	3225
Sta. Wagon	1604	108	1712	3465
Fit. Sedan	1222	87	1309	3240
Sport Coupe	1130	82	1212	3145
Cabriolet	1381	95	1476	3445
Aerosedan	1165	84	1249	3165
CHRYSLER				
Royal-Six				
Coupe, 3p.	1431	79	1510	3373
Club Coupe	1551	85	1636	3443
Lux. Brghm.	1526	84	1610	3458
Sedan, 4d., 6p.	1561	85	1646	3523
Sedan, 4d., 8p.	1943	106	2049	3977
Limousine	2063	113	2176	4022
Windsor-Six				
Coupe, 3p.	1481	81	1562	3383
Club Coupe	1601	88	1689	3448
Conv. Coupe	1861	101	1962	3693
Lux. Brghm.	1591	87	1678	3468
Sedan, 4d.	1611	88	1699	3528
Sedan, 8p.	1993	109	2102	3977
Limousine	2113	115	2228	4052
Twn. & Ctry.				
Sedan, 4d.	2366	128	2494	3917
Saratoga 8				
Coupe, 3p.	1753	96	1849	3817
Club Coupe	1848	101	1949	3892
Lux. Brghm.	1838	100	1938	.....
Sedan, 4d., 6p.	1863	101	1964	3972
New Yorker 8				
Coupe, 3p.	1853	101	1954	3837
Club Coupe	1948	106	2054	3897
Conv. Coupe	2193	119	2312	4132
Lux. Brghm.	1938	105	2043	3932
Sedan, 4d., 6p.	1963	107	2070	3987
Twn. & Ctry. 8				
Sedan, 4d.	2738	148	2886	.....
Conv. Coupe	2743	146	2889	4332
Crown Imp. 8				
Limousine, 8p.	3875	204	4079	4814
CROSLEY*				
Sedan, 2d.	849	56	905	1115
Convertible	949	62	1011	1110
DE SOTO				
DeLuxe				
Coupe, 3p.	1331	73	1404	3302
Club Coupe	1451	80	1531	3392
Sedan, 2d.	1426	78	1504	3397
Sedan, 4d., 6p.	1461	80	1541	3427
Custom				
Club Coupe	1501	82	1583	3378
Conv. Coupe	1761	96	1857	3618
Brougham	1491	82	1573	3423
Sedan, 4d., 6p.	1511	83	1594	3433
Sedan, 4d., 7p.	1893	104	1997	3837
Limousine	2013	110	2123	.....
Suburban	2193	120	2313	4012
DODGE				
DeLuxe				
Coupe	$1229	$68	$1297	3146
Sedan, 2d.	1299	72	1371	3236
Sedan, 4d.	1339	74	1413	3256
Custom				
Club Coupe	1384	76	1460	3241
Conv. Coupe	1649	90	1739	3461
Sedan, 4d.	1389	77	1466	3281
Twn. Sedan	1444	80	1524	3331
Sedan, 4d., 7p.	1743	96	1839	3757
FORD†				
DeLuxe 6				
Coupe	1036	74	1110	3033
Tudor	1070	76	1146	3183
Fordor	1154	80	1234	3213
Super DeL. 6				
Coupe	1125	78	1203	3033
Tudor	1135	79	1214	3183
Fordor	1195	82	1277	3233
Sed. Coupe	1180	81	1261	3133
Stat. Wagon	1468	97	1565	3487
DeLuxe V8				
Coupe	1086	76	1162	3066
Tudor	1120	78	1198	3216
Fordor	1204	83	1287	3246
Super DeL. V8				
Coupe	1175	81	1256	3066
Tudor	1220	83	1303	3216
Fordor	1279	86	1365	3266
Sedan Coupe	1253	85	1338	3166
Conv. Club Cpe.	1436	95	1531	3266
Sportsman	1921	120	2041	3366
Stat. Wagon	1517	100	1617	3520
FRAZER				
Sedan, 4d.	2143	111	2254	3365
HUDSON				
Super Six 171				
Sedan, 4d.	1491	83	1574	3110
Brougham	1449	81	1530	3055
Coupe, 3p.	1420	80	1500	2975
Club Coupe	1489	83	1572	3040
Conv. Brougham	1799	99	1898	3220
Com. Six 172				
Sedan, 4d.	1630	91	1721	3175
Club Coupe	1625	90	1715	3090
Super 8, 173				
Sedan, 4d.	1598	88	1686	3260
Club Coupe	1595	88	1683	3210
Com. Eight 174				
Sedan, 4d.	1702	94	1796	3330
Club Coupe	1689	93	1782	3260
Conv. Brghm.	1985	107	2072	3435
KAISER				
Sedan, 4d.	1958	105	2063	3305
LINCOLN†				
Sedan, 4d.	2185	152	2337	4015
Cus. Sedan, 4d.	2327	159	2486	4015
Club Coupe	2167	151	2318	3915
Cus. Club Cpe.	2309	158	2467	3915
Conv. Coupe	2704	179	2883	4245
Cont. Coupe	4125	267	4392	4125
Cont. Cabriolet	4205	271	4476	4135
MERCURY†				
Sedan, 2d.	1404	97	1501	3268
Twn. Sedan, 4d.	1462	100	1562	3298
Sedan Coupe	1449	99	1548	3218
Club. Conv.	1654	110	1764	3368
Sportsman	2128	135	2263	3435
Stat. Wagon	1676	112	1788	3571
NASH*				
600 Series				
Sedan, 4d., Trk.	1270	94	1364	2786
Brougham, 2d.	1221	94	1315	2731
Sedan, 4d.	1226	94	1320	2826
Ambassador				
Sedan, 4d., Trk.	1521	110	1631	3387
Brougham, 2d.	1463	110	1573	3312
Sedan, 4d.	1479	110	1589	3412
Suburban	1917	132	2049	3522
OLDSMOBILE*				
Series 66-6				
Stat. Wagon	2175	144	2319	3770
Conv. Coupe	1627	115	1742	3611
Club Coupe	1308	99	1407	3616
Club Sedan	1334	99	1433	3323
Sedan, 4d.	1369	102	1471	3356
Series 76-6				
Club Sedan, Std.	1392	105	1497	3495
Club Sedan, DeL.	1500	110	1610	3515
Sedan, 4d., Std.	1459	109	1568	3523
Sedan, 4d., DeL.	1565	113	1678	3590
OLDSMOBILE* (Continued)				
Series 68-8				
Stat. Wagon	$2228	$147	$2375	3900
Conv. Coupe	1680	118	1798	3741
Club Coupe	1361	102	1463	3448
Club Sedan	1387	103	1490	3453
Sedan, 4d.	1422	105	1527	3486
Series 78-8				
Club Sedan, Std.	1445	109	1554	3612
Club Sedan, DeL.	1554	112	1666	3650
Sedan, 4d., Std.	1512	112	1624	3638
Sedan, 4d., DeL.	1618	115	1733	3705
Series 98-8				
Conv. Coupe	2040	141	2181	4049
Club Sedan	1642	120	1762	3715
Sedan, 4d.	1690	122	1812	3795
PACKARD				
Clipper Six				
Tour. Sedan	1658	87	1745	3495
Club Sedan	1610	85	1695	3450
DeL. & Clipper				
Tour. Sedan	1850	97	1947	3670
Club Sedan	1800	95	1895	3625
Super 8 Clipper				
Tour. Sedan	2277	114	2391	3995
Club Sedan	2230	112	2342	3950
Cus. Sup. 8 Clip.				
Tour. Sedan	3119	155	3274	4060
Club Sedan	2992	148	3140	4000
Limousine	4307	214	4521	4900
Sedan, 7p.	4151	206	4357	4870
PLYMOUTH				
DeLuxe				
Coupe, 3p.	1089	63	1152	2977
Club Coupe	1159	67	1226	3037
Sedan, 2d.	1124	65	1189	3047
Sedan, 4d.	1164	67	1231	3062
Spec. DeLuxe				
Coupe, 3p.	1159	66	1225	2962
Club Coupe	1234	70	1304	3057
Conv. Coupe	1439	81	1520	3282
Sedan, 2d.	1199	69	1268	3032
Sedan, 4d.	1239	71	1310	3107
Stat. Wagon	1539	87	1626	3402
PONTIAC*				
Streamliner 6				
Sedan Coupe	1359	104	1463	3405
Sedan, 4d.	1407	107	1514	3460
Stat. Wagon	1992	138	2130	.....
DeL. Sta. Wagon	2066	141	2207	3725
Torpedo 6				
Bus. Coupe	1217	96	1313	.....
Sport Coupe	1231	98	1359	3300
Sedan Coupe	1305	100	1405	3305
Sedan, 2d.	1275	99	1374	3305
Sedan, 4d.	1331	102	1433	3330
Conv. Sed. Cpe.	1595	116	1711	3570
Streamliner 8				
Sedan Coupe	1404	107	1511	3460
Sedan, 4d.	1452	109	1561	3520
Stat. Wagon	2037	140	2177	.....
DeL. Sta. Wagon	2111	143	2254	3795
Torpedo 8				
Bus. Coupe	1262	98	1360	.....
Sport Coupe	1306	100	1406	3365
Sedan Coupe	1350	102	1452	3375
Conv. Sed. Cpe.	1640	118	1758	3645
Sedan, 2d.	1320	101	1421	3375
Sedan, 4d.	1376	104	1480	3415
STUDEBAKER*				
Champion DeL.				
Sedan, 4d.	1292	.....	1388	2735
Sedan, 2d.	1262	.....	1356	2685
Coupe, 5p.	1287	.....	1383	2670
Coupe, 3p.	1197	.....	1288	2600
Champ. Reg. DeL.				
Sedan, 4d.	1362	.....	1462	2760
Sedan, 2d.	1332	.....	1430	2710
Coupe, 5p.	1357	.....	1456	2690
Coupe, 3p.	1267	.....	1362	2620
Commander DeL.				
Sedan, 4d.	1544	.....	1657	3265
Sedan, 2d.	1514	.....	1626	3230
Coupe, 5p.	1539	.....	1652	3210
Coupe, 3p.	1449	.....	1557	3140
Comm. Reg. DeL.				
Sedan, 4d.	1659	.....	1778	3290
Sedan, 2d.	1629	.....	1747	3245
Coupe, 5p.	1654	.....	1773	3225
Coupe, 3p.	1564	.....	1678	3155
WILLYS				
Station Wagon	1495	.....	.....	.....

*—Federal Excise taxes and Delivered Price at Factory include dealer handling charges. †—Preparation and conditioning charges and Federal taxes.

AMERICAN

Line Number	PASSENGER CAR MAKE AND MODEL	Wheelbase (In.)	TREAD (In.)		OVERALL DIMENSIONS (In.)			Shipping Weight (Lb.) Cheapest 5 pass., 4 door Sedan or Equivalent	Price—Cheapest 5 pass., 4 door Sedan or Equivalent	Tire Size (In).	ENGINE						
			Front	Rear	Length—Incl. Bumpers and Bumper Guards	Width	Height—Road to Roof—No Load				Number of Cylinders, Bore and Stroke (In.)	Taxable Horsepower	Total Piston Displacement (Cu. In.)	Max. Brake Hp. at Specified RPM		Max. Torque (Lf. Ft.) at Specified RPM	
														With Bare Engine	With Standard Accessories	With Bare Engine	With Standard Accessories
1	Buick-Special....40	121	58⅞	61 11/16	207½	77 9/16	66 11/16	3720	1555	6.50/16	8-3 3/32x4½	30.6	248.0	110-3600	105-3500	206-2000	202-2000
2	Buick-Super....50	124	58⅞	61 11/16	212⅝	78⅝	64 11/16	3910	1787	6.50/16	8-3 3/32x4⅛	30.6	248.0	110-3600	105-3500	206-2000	202-2000
3	Buick-Roadmaster....70	129	59⅛	62 1/16	217⅛	78⅝	65 1/64	4385	2060	7.00/15	8-3 1/16x4 1/16	37.8	320.2	144-3600	133-3300	276-2000	267-2000
4	Cadillac-V8....61	126	59	63	214½	80⅞	68½	4138	2203	7.00/15	8-3½x4½	39.2	346.0	150-3600	130-3200	274-1600	260-1700
5	Cadillac-V8....62	129	59	63	219 1/16	80¾	66 11/16	4201	2386	7.00/15	8-3½x4½	39.2	346.0	150-3600	130-3200	274-1600	260-1700
6	Cadillac-V8....60	133	59	63	223 1/16	80¾	66 11/16	4351	3126	7.00/15	8-3½x4½	39.2	346.0	150-3600	130-3200	274-1600	260-1700
7	Cadillac-V8....75	136	58½	62½	225 1/16	82 1/16	72	4836	4340	7.50/16	8-3½x4½	39.2	346.0	150-3600	130-3200	274-1600	260-1700
8	Chevrolet....Six	116	57⅝	60	197	73⅛	69⅝	3170	1152	6.00/16	6-3½x3¾	29.4	216.5	90-3300	83-3200	174-2000	168-1100
9	Chrysler....C-38	121½	57	60 3/32	208¼	77¼	.....	3523	1646	6.50/15	6-3 1/16x4½	28.3	250.6	114-3600	.....	204-1200	.....
10	Chrysler....C-39	127½	57 11/16	61 1/16	214¼	77¾	.....	3972	1964	7.00/15	8-3¼x4⅛	33.8	323.5	135-3400	.....	270-1600	.....
11	Chrysler....C-40	145½	57 11/16	61⅛	234¾	77¾	.....	4814	3875	7.50/15	8-3¼x4⅞	33.8	323.5	135-3400	.....	270-1600	.....
12	Crosley....CC-46	80	40	40	145	49	57	1115	905	4.50/12	4-2½x2¼	10.0	44.0	.....	26.5-5400	.....	33.5-3000
13	De Soto....S-11	121½	57	60 3/32	207¼	75⅝	.....	3427	1541	6.50/15	6-3 1/16x4¼	28.3	236.6	109-3600	.....	192-1200	.....
14	Dodge....D-24	119½	57	60 3/32	204½	74⅞	.....	3256	1413	6.00/16	6-3¼x4⅛	25.3	230.2	102-3600	.....	184-1200	.....
15	Ford....6GA	114	58	60	198 1/16	.....	.....	3213	1234	6.00/16	6-3.30x4.40	26.1	226.0	90-3300	.....	180-1200	.....
16	Ford....69A	114	58	60	198 1/16	73½	69½	3246	1287	6.00/16	8-3 1/16x3¾	32.5	239.4	100-3800	89-3600	180-2000	175-1600
17	Frazer....F-47	123½	58	60	203	72⅛	64½	3365	2254	6.50/15	6-3 1/16x4⅛	26.3	226.0	100-3600	.....	180-1400	.....
18	Hudson....171-172	121	56 1/16	59½	207⅜	.....	.....	3110	1574	6.00/16	6-3x5	21.6	212.0	.....	102-4000	.....	168-1200
19	Hudson....173-174	121	56 1/16	59½	207⅜	.....	.....	3260	1686	(a)	8-3x4½	28.8	254.0	.....	128-4200	.....	198-1600
20	Kaiser....K-100	123½	58	60	203	72⅛	.....	3305	2063	6.50/15	6-3 1/16x4⅛	26.3	226.2	100-3600	.....	180-1400	.....
21	Lincoln....68H	125	59	60 1/16	216	77¼	67¾	4015	2337	7.00/15	12-2 1/16x3¾	41.4	305.0	130-3600	.....	235-1800	.....
22	Mercury....69M	118	58	60	201.63	73½	69 1/16	3298	1562	6.50/15	8-3 1/16x3¾	32.5	239.4	100-3800	89-3600	180-2000	175-1600
23	Nash....4740	112	56 1/16	59¼	199 1/16	75¼	68¼	2786	1364	6.00/16	6-3 1/16x3¾	23.4	172.6	82-3800	.....	138-1600	.....
24	Nash....4760	121	57½	60½	208 1/16	75⅜	69¼	3387	1631	6.50/15	6-3 5/16x4⅜	27.3	234.8	112-3400	.....	208-1600	.....
25	Oldsmobile....Spec. Series 66	119	58	61½	204	75⅜	68 1/16	3356	1471	6.00/16	6-3 1/16x4⅛	29.4	238.1	100-3400	94-3400	190-1200	185-1200
26	Oldsmobile....Dynamic Cruiser 6	125	58	61½	213	76	65 1/16	3523	1568	6.50/16	6-3 1/16x4⅛	29.4	238.1	100-3400	94-3400	190-1200	185-1200
27	Oldsmobile....Spec. Series 68	119	58	61½	204	75⅜	68 1/16	3486	1527	6.50/15	8-3¼x3⅞	33.8	257.1	110-3600	104-3600	210-2000	204-2000
28	Oldsmobile....Dynamic Cruiser 8	125	58	61½	213	76	65 1/16	3638	1624	6.50/16	8-3¼x3⅞	33.8	257.1	110-3600	104-3600	210-2000	204-2000
29	Oldsmobile....Cus. Crus. 8-98	127	58	61½	216	77 1/16	64 1/16	3793	1812	7.00/15	8-3¼x3⅞	33.8	257.1	110-3600	104-3600	210-2000	204-2000
30	Packard....Six-2100	120	59¼	60 3/32	208½	76⅛	63½‡	3495	1745	6.50/15	6-3½x4¼	29.4	245.3	105-3600	.....	192-2000	.....
31	Packard....Eight-2111	120	59¼	60 1/16	208½	76⅛	63½‡	3670	1947	6.50/15	8-3¼x4¼	33.8	282.0	125-3600	.....	230-2000	.....
32	Packard....Eight-2103-2106	127	59¼	60 1/16	215½	76⅛	64	3995	2391	7.00/15	8-3½x4½	39.2	356.0	165-3600	.....	292-2000	.....
33	Plymouth....P-15	117	57	60⅛	196¾	73⅝	.....	3082	1231	6.00/16	6-3¼x4⅛	25.3	217.8	95-3600	.....	172-1200	.....
34	Pontiac....Six-25	119	58	61½	204½	75¾	66	3330	1433	6.00/16	6-3 1/16x4	30.4	239.2	93.5-3400	87.5-3200	186-1400	186-1100
35	Pontiac....Six-26	122	58	61½	210¼	78¾	65¼	3460	1514	6.50/16	6-3 1/16x4	30.4	239.2	93.5-3400	87.5-3200	186-1400	186-1100
36	Pontiac....Eight-27	119	58	61½	204½	75¾	66	3415	1480	6.00/16	8-3¼x3¾	33.8	248.9	107-3700	101-3600	192-2100	190-2000
37	Pontiac....Eight-28	122	58	61½	210¼	78¾	65¼	3520	1561	6.50/16	8-3¼x3¾	33.8	248.9	107-3700	101-3600	192-2100	190-2000
38	Studebaker....6G	.....	56¼	54	192¾	69¾	60½‡	2735	1388	5.50/15	6-3x4	21.6	169.6	80-4000	.....	134-2000	.....
39	Studebaker....14A	▾	55	54	▾	69¾	61¼	3265	1657	6.50/15	6-3 1/16x4⅜	26.3	226.2	94-3800	.....	176-1600	.....
40	Willys....Station Wagon	104	55¼	57	174 11/16	68	71	.....	.....	6.00/15	4-3½x4⅜	15.6	134.2	63-4000	.....	105-2000	.....

ABBREVIATIONS

†—All weights are shipping weights of cheapest 5 pass., 4 door sedan plus 500 lb. for passengers and all fluids

‡—Based on Hp with accessories unless otherwise noted

†—Based on bare engine Hp.

††—Computed on basis of displacement, rear axle ratio, effective tire diameter and shipping weights of cheapest 5 pass., 4 door sedan plus 500 pounds

‡—Computed on basis of tire revolutions per mile in conjunction with rear axle ratio of cheapest 5 pass. 4 door sedan.

*—Lower bearing size

‡—With load

▾—Wheelbase 119" and 123", bumper to bumper 204 3/16" and 208 3/16"

▲—Width of Ring No. 1 is .093 Ring No. 2 width .123

½—Semi-floating

¾—Three quarter floating

(1)—Champion Y4A or AC104

A—The Electric Auto-Lite Co.

(a)—Model 53—6.00/16; Model 54—6.50/15

AC—AC Spark Plug Co.

Al.—Aluminum

Ala—Aluminum Alloy

Aln—Aluminum, Anodized Finish

At—Aluminum, tin plated

CA—Continental Diamond Fibre or Alum. Co. of America

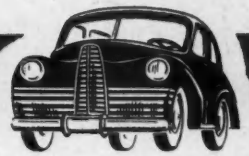
CD—Continental Diamond Fibre

ch—Chain

Ch—Champion Spark Plug Co.

Cna—Chrome Nickel Alloy

PASSENGER CARS



Standard Compression Ratio (to-1)	ENGINE: Compression Pressure — Pressure (Lb.)	ENGINE: Compression Pressure — At what RPM	ENGINE: Weight per Cu. In.† 5 pass., 4 door Sedan	ENGINE: Weight per Hp— 5 pass., 4 door Sedan.‡	ENGINE: Hp per Cu. In.‡	ENGINE: Performance Factor††	ENGINE: Crankshaft Revolutions per Mile§	VALVES: Valve Arrangement	VALVES: Valve Seat Inserts (Exhaust)	VALVES: Intake — Head Diameter (In.)	VALVES: Intake — Seat Angle (Deg.)	VALVES: Exhaust — Head Diameter (In.)	VALVES: Exhaust — Seat Angle	Piston Material	RINGS: Number and Width Compression	RINGS: Number and Width Oil	Camshaft Drive—Make and Type	Number of Main Bearings	Crank Pin Journal — Diameter (In.)	Crank Pin Journal — Length (In.)	Gear Shift Type	Spark Plug—Make and Model	Electrical System—Make	Battery—Make	REAR AXLE: Type	REAR AXLE: Final Drive	REAR AXLE: Torque Medium	REAR AXLE: Gear Ratio (In. High)	Line Number
6.30	135	1000	17.01	40.19	.42	36.9	3240	I	N	1.53	45	1.34	45	Ala	2–1/4	2–1/16	LB–ch	5	2	1 7/32	Man	AC–48	D	Del	1/2	Hyp	TT	4.45	1
6.30	135	1000	17.78	42.00	.42	35.2	3240	I	N	1.53	45	1.34	45	Ala	2–1/4	2–1/16	LB–ch	5	2	1 7/32	Man	AC–48	D	Del	1/2	Hyp	TT	4.45	2
6.60	140	1000	15.25	36.72	.41	37.8	2980	I	N	1.78	45	1.43	45	Ala	2–1/4	2–1/16	LB–ch	5	2 1/4	1 1/16	Man	AC–48	D	Del	1/2	Hyp	TT	4.10	3
7.25	182	1000	13.39	35.68	.37	39.6	2740	L	N	1.88	45	1.63	45	Ain	2–1/4	1–1/8	Own–ch	3	2.46	2.29	(1)	AC–104	D	Del	1/2	Hyp	Sp	3.77	4
7.25	182	1000	13.59	36.15	.37	39.2	2740	L	N	1.88	45	1.63	45	Ain	2–1/4	1–1/8	Own–ch	3	2.46	2.29	(1)	AC–104	D	Del	1/2	Hyp	Sp	3.77	5
7.25	182	1000	14.00	37.30	.37	37.8	2740	L	N	1.88	45	1.63	45	Ain	2–1/4	1–1/8	Own–ch	3	2.46	2.29	(1)	AC–104	D	Del	1/2	Hyp	Sp	3.77	6
7.25	182	1000	15.40	41.00	.37	.....	.....	L	N	1.88	45	1.63	45	Ain	2–1/4	1–1/8	Own–ch	3	2.46	2.29	(1)	AC–104	D	Del	1/2	Hyp	Sp	4.27	7
6.50	....	.....	16.95	44.21	.38	34.9	3050	I	N	1.64	30	1.46	30	CT	2–.123	1–.180	Var–ge	4	2.31	1.49	(2)	AC–M8	D	Del	1/2	Hyp	TT	4.11	8
6.60	160	1000	16.05	35.29	.46‡	35.5	2925	L	....	1.71	45	1.53	45	Ala	2–.093	2–.156	....–ch	4	2.12•	1.21•	(3)	A–14 mm	A	Wil	1/2	Hyp	Sp	3.90	9
6.70	160	1000	13.82	33.10	.42‡	39.8	2835	L	....	1.53	45	1.34	45	Ala	2–.093	2–.156	....–ch	6	2.18•	1.12•	(3)	A–14 mm	A	A	1/2	Hyp	Sp	3.91	10
6.70	160	1000	16.42	39.40	.42‡	.....	2477	L	....	1.53	45	1.34	45	Ala	2–.093	2–.156	....–ch	6	2.18•	1.12•	(4)	A–14 mm	A	A	1/2	Hyp	Sp	3.56	11
7.50	135	260	32.10	.....	.60	.....	.....	I	N	1.17	45	1.04	45	Al	2–.062	1–.093	Own–ge	5	1.37	.870	Man	A–A–7	A	A	1/2	SB	TT	5.17	12
6.60	160	1000	16.59	36.00	.46‡	34.0	2925	L	....	1.71	45	1.53	45	Ala	2–.093	2–.156	....–ch	4	2.12•	1.21	(3)	.....	.....	Wil	1/2	Hyp	Sp	3.90	13
6.70	155	1000	16.31	36.80	.44‡	36.2	3054	L	....	1.53	45	1.40	45	Ala	2–.093	2–.156	....–ch	4	2.06•	1.00	Man	.....	.....	A	1/2	Hyp	Sp	4.10	14
6.70	....	.....	16.42	.....	.40‡	33.1	2800	L	N	1.65	45	1.51	45	Ala	2–....	2–....	Own–ge	4	.....	.....	Man	Ch–....	Own	A	....	.....	.....	3.78	15
6.75	160	2400	15.64	42.08	.37	32.6	2625	L	N	1.50	45	1.50	45	At	2–.091	2–.154	Own–ge	3	2.14	1.75	Man	Ch–H10	Own	A	3/4	SB	Rr	3.54	16
7.30	....	.....	17.10	38.65	.44‡	36.4	3205	L	N	1.51	30	1.32	45	Ala	2–.093	2–.155	....ch	4	2.06	1.31	Man	Ch–....	A	A	1/2	Hyp	Sp	4.27	17
6.50	120	125	17.02	35.39	.48	34.8	3045	L	N	1.37	45	1.37	45	Ala	2–.093	2–(e)	CA–ge	3	1.93	1.37	(5)	Ch–J–9	A	Nat	1/2	SB	Sp	4.11	18
6.50	119	125	14.80	29.37	.50	40.0	3045	L	N	1.50	45	1.37	45	Ala	2–.093	2–(e)	CA–ge	5	1.93	1.37	(5)	Ch–J–9	A	Nat	1/2	SB	Sp	4.11	19
6.86	....	.....	16.82	38.05	.44‡	35.6	3065	L	....	1.51	30	1.37	45	At	2–.093	2–.155	....–ch	4	2.06	1.31	Man	.....	.....	.....	1/2	Hyp	Sp	4.09	20
7.20	167	2400	14.80	34.75	.43‡	40.1	3065	L	Y	1.53	45	1.53	45	CS	2–.093	1–.187	Own–ge	4	2.25	1.75	Man	Ch–H–10	Own	Var	3/4	Hyp	Rr	4.22	21
6.75	160	2400	15.86	42.67	.37	32.6	2658	L	Y	1.50	45	1.50	45	At	2–.091	2–.154	Own–ge	3	2.14	1.75	Man	Ch–H–10	Own	Var	3/4	SB	TT	3.54	22
7.10	120	350	19.04	40.10	.48‡	30.9•	3040	L	N	1.48	44	1.28	44	At	2–.093	1–.186	Own–ch	4	1.87	1.25	Man	A–A–5	A	A	1/2	Hyp	TT	4.10	23
7.02	125	350	16.55	34.75	.48‡	36.2	3070	I	N	1.75	44	1.46	44	At	2–.124	2–.155	Own–ch	7	2.00	1.42	Man	AC–44	A	A	1/2	Hyp	Sp	4.10	24
6.50	115	100	16.19	41.02	.39	38.2	3199	L	N	1.56	30	1.42	45	Ala	2–.093	2–.187	Whi–ch	4	2.12	1.25	(1)	AC–48	D	Del	1/2	Hyp	SA	4.30	25
6.50	115	100	16.90	42.80	.39	39.3	3290	L	N	1.56	30	1.42	45	Ala	2–.093	2–.187	Whi–ch	4	2.12	1.25	(1)	AC–48	D	Del	1/2	Hyp	SA	4.55	26
6.50	107	100	15.50	38.33	.40	40.5	3234	L	N	1.56	30	1.42	45	Ala	2–.093	2–.187	LB–ch	5	2.12	1.25	(1)	AC–48	D	Del	1/2	Hyp	SA	4.30	27
6.50	107	100	16.17	39.78	.40	37.6	3109	L	N	1.56	30	1.42	45	Ala	2–.093	2–.187	LB–ch	5	2.12	1.25	(1)	AC–48	D	Del	1/2	Hyp	SA	4.30	28
6.50	107	100	16.70	41.28	.40	38.3	3308	L	N	1.56	30	1.42	45	Ala	2–.093	2–.187	LB–ch	5	2.12	1.25	(1)	AC–48	D	Del	1/2	Hyp	SA	4.55	29
6.71	....	.....	16.28	38.05	.43‡	38.5	3125	L	....	1.59	30	1.37	45	Ala	2–▲	1–.186	MR–ch	4	2.09	1.25	(6)	(1)	D-A	W-A	1/2	Hyp	Sp	4.30	30
6.85	....	.....	14.79	33.35	.44‡	40.5	3075	L	....	1.48	30	1.37	45	Ala	2–▲	1–.186	MR–ch	5	2.09	1.25	(6)	(1)	A	W-A	1/2	Hyp	Sp	4.10	31
6.85	....	.....	12.63	27.20	.46‡	43.8	2850	L	....	1.67	30	1.43	45	Ala	2–▲	1–.186	Mor–ch	9	2.25	1.37	(6)	(1)	A	A	1/2	Hyp	Sp	3.92	32
6.60	150	1000	16.45	37.70	.44‡	34.1	2902	L	Y	1.53	45	1.40	45	Ala	2–.093	2–.156	....–ch	4	2.12•	1.00	Man	.....	.....	A	1/2	Hyp	Sp	3.90	33
6.50	160	1000	16.01	43.77	.37	36.8	3040	L	N	1.59	30	1.46	45	Cna	2–.093	1–.187	Mor–ch	4	2.12	1.28	Man	AC–45	D	Del	1/2	Hyp	Sp	4.10	34
6.50	160	1000	16.55	45.25	.37	36.5	3125	L	N	1.59	30	1.46	45	Cna	2–.093	1–.187	Mor–ch	4	2.12	1.28	Man	AC–45	D	Del	1/2	Hyp	Sp	4.30	35
6.50	158	1000	15.72	38.76	.41	37.4	3040	L	N	1.46	30	1.34	45	Cna	2–.093	1–.187	Mor–ch	5	2.00	1.06	Man	AC–45	D	Del	1/2	Hyp	Sp	4.10	36
6.50	158	1000	16.15	39.80	.41	37.4	3125	L	N	1.46	30	1.34	45	Cna	2–.093	1–.187	Mor–ch	5	2.00	1.06	Man	AC–45	D	Del	1/2	Hyp	Sp	4.30	37
6.50	105	150	19.07	40.40	.47‡	32.9	3245	L	N	1.34	45	1.28	45	Lyn	2–.093	1–.156	CD–ge	4	1.81	1.12	Man	Ch–J–7	A	Wil	1/2	Hyp	Sp	4.10	38
6.50	105	150	16.64	40.10	.42‡	35.9	3070	L	N	1.46	45	1.28	45	Lyn	2–.093	1–.187	CD–ge	4	2.18	1.37	Man	Ch–J–7	A	Wil	1/2	Hyp	Sp	4.09	39
6.48	110	160	.....	.....	.....	.....	.....	L	N	1.53	45	1.46	45	Ala	2–1/4	1–1/8	....–ge	..	.....	.....	Man	A–AN7	A	W-A	1/2	Hyp	.....	4.88	40

Ca—Cast steel
CS—Copper-Silicon Steel
Ci—Cast iron, tin plated
D—Delco-Remy Div.
D-A—Delco or Auto-Lite
Del—Delco ge—Gear
Hyp—Hypoid gear I—In-head (valves)
L—L-Head (valves)
LB—Link-Belt Co.
Lyn—Lynite Man—Manual
Mor—Morse Chain Co.
MR—Morse or Ramsey chain
N—No or None
Nat—National Battery Co.
Rr—Radius rods
SA—Stabilizing arm
SB—Spiral Bevel
Sp—Through rear springs
TT—Through Torque Tube
W-A—Willard SW-ID-100 or Auto-Lite P-15-ZR
Whi—Whitney
Wil—Willard Storage Battery Co. Y—Yes

(1)—Hydra-Matic Drive—full automatic—hydraulically operated—at extra cost.
(2)—Bendix vacuum assist—standard equipment
(3)—Semi-automatic transmission and fluid coupling—at extra cost
(4)—Semi-automatic transmission (hydraulically operated) and fluid coupling as standard equipment
(5)—Vacuum electric shift at extra cost
(6)—Electromatic Drive—vacuum electric shift—at extra cost

TRUCK SPECIFICATIONS TABLE
OF CURRENT PRODUCTION MODELS

Key to Definitions, References and Abbreviations

DEFINITIONS

MAKE AND MODEL

Only Domestic Truck Models are listed.

OPTIONAL UNITS

For the express purpose of best fitting the truck to the individual job most of the models listed can be provided with optional engines, transmissions, axles, etc., and these models when so equipped, are considered standard stock models.

CHASSIS LIST PRICE

The chassis list price applies to the minimum standard wheelbase with standard tires and standard equipment. All prices are F.O.B. factory. Chassis list price does not include the price of the Cab unless otherwise noted.

RECOMMENDED GROSS VEHICLE WEIGHT FOR NORMAL SERVICE

The Gross Weights published herewith are those supplied by manufacturers as their Recommended Gross Vehicle Weights for Normal Operating Conditions, and are based upon the Maximum authorized Tire Size listed. In actual practice the manufacturer may either increase or decrease the gross vehicle weight rating when either favorable or unfavorable operating conditions are involved. Since the proper performance of a motor truck depends upon many factors, including grades, road conditions, etc., the gross weight that a manufacturer is prepared to recommend will vary with particular conditions, and the manufacturer's own standard of safety factors. Specific recommendations, therefore, should be obtained from the manufacturer's representative.

CHASSIS WEIGHT

The chassis weight listed includes the weight of the minimum standard wheelbase chassis, with cowl, with standard tires, with standard equipment, with crankcase and cooling system full, and 5 gallons of fuel in the tank. It does not include the weight of the Cab. This applies to C.O.E. as well as conventional chassis types. Exceptions are noted.

STANDARD TIRE SIZE

The standard tire size listed is that which is included in the Chassis List Price.

MAXIMUM AUTHORIZED TIRE SIZE

The tire size listed in this column is the maximum size recommended by the manufacturer of the chassis for the Gross Vehicle Weight for Normal Operating Conditions. It is furnished at extra cost, if it differs from the standard size. Dual rears are understood; exceptions noted.

MINIMUM STANDARD WHEELBASE

The minimum standard wheelbase is the so-called standard wheelbase on which the Chassis List Price is based.

MAXIMUM STANDARD WHEELBASE

The maximum standard wheelbase is the extreme end of the standard range of wheelbase offered by the chassis maker.

MAXIMUM BRAKE HP.

Maximum Brake Horsepower at Given R.P.M. is actual dynamometer reading without accessories.

GEAR RATIO RANGE

Gear Ratio Range in High—Ratios within the range given are available at no extra cost. Exceptions are noted.

TRACTORS

Unless given the designation (N)—meaning not available as a tractor—all standard models may be assumed to be available as tractors. Exclusively Tractor models are designated (T).

KEY TO REFERENCES

c.f.—Cab Forward design.
c.o.e.—Cab-Over-Engine design.
(D)—Diesel-engine equipped.
(T)—Designed for tractor use only.
(C)—Converted Ford or Chevrolet Model.

(2) International Harvester—Specifications shown represent only the basic standard chassis units and standard chassis ratings in keeping with definitions established by Commercial Car Journal. Optional units not shown such as engines, clutches, transmissions, axles or axle ratios, brakes, wheels and tires, frames or frame reinforcements, optional wheelbases or any other units which make up part of the truck chassis and which International will furnish and approve from the factory as optional equipment can or will change either the ratings, chassis weight shown or performance of the truck as indicated by this list.

Also the company reserves the privileges of assigning special gross vehicle ratings for any chassis providing in the opinion of our engineering department, the type of service justifies the new rating without decreasing the safety factor designed into the truck.

(a)—Available with Eaton Two-Speed Axle designated KS Models.

(b) Current models will include, at additional cost, certain items not considered standard equipment. These items are included in the specifications and are listed below—Model K-3, oversize transmission; Models K-6, K-7 and K-6-F, oversize brakes; Model K-8, oversize engines and brakes; Model K-10, oversize engine, transmission and brakes; Model KR-11, oversize engine and transmission; Models K-9F and K-11-F, oversize engine and brakes.

KEY TO ABBREVIATIONS

MAKES—ALL

B—Bendix
BL—Brown-Lipe.
Bu or Bud—Buda.
BW—Bendix-Westinghouse.
C—Chevrolet.
Cl or Cla—Clark.
Con—Continental.
Cum—Cummins-Diesel.
Eat—Eaton.
F—Ford.
Fu—Fuller.
H—Hotchkiss.
Her—Hercules.
L—Lockheed.
LH—Lockheed front, Wagner "hi-Tork" rear.
LW—Lockheed front, Wisconsin rear.
M—Midland.
N.P.—New Process.
O or Ow—Own.
Op or Opt—Optional.
Shu—Shuler.
Spi—Spicer
T or Tim—Timken.
Tw—Timken-Westinghouse
TW—Timken-Wisconsin.
WG—Warner Gear.
Wau—Waukesha.
W or Wis—Wisconsin.
Ws—Westinghouse.
WW—Westinghouse or Wagner

BRAKES—SERVICE

Location

4—Four Wheels, front and rear.
4r—Four Wheels, rear only.

Type

I—Internal.
X—External.

Operation

A—Air.
H—Hydraulic.
V—Vacuum.
Dp—Dual Primary.

BRAKES—HAND

Location

C—Center of double propeller shaft.
2—Rear wheels.
4—Four wheels.
6—Six wheels.
P—Back of Power Divider.

J—Jackshaft.
T—Transmission.
F—Driveshaft.

Type

D—Tru-Stop disk.
I—Internal.
M—Mechanical.
X—External.
PD—Two drums on rear of power divider.

BRAKE DRUMS

Material

a—Cast alloy iron.
A—American Car Foundry.
c—Cast iron.
Cl—Copper iron.
Co—Composite.
D—Dayton.
E—Ermalite.
G—Gunite.
N—Nickel iron.
S—Steel.
(Where a combination of any of the above is used, the first reference mark applies to the front and the second to the rear drums.)

FRAME

Type

C—Channel.
T—Channel tapered front and rear.
L—Channel reinforced with liner.
B—Channel reinforced with both liner and fishplate.
P—Channel reinforced with plate.
TL—Channel tapered front and rear reinforced with liner.
D—Drop Center.
Tf—Tapered front.
A—Straight section sidemembers, lined with oak inserts.
Z—Reinforced (X) member frame, box type sections.

GOVERNOR STANDARD

Y—Yes.
N—No.

REAR AXLE

Final Drive and Type

B—Bevel.
CD—Chain Drive.
F—Full-floating.
Hy—Hypoid.
d—Dual range axle.
2—Double Reduction.
S—Spiral bevel.
W—Worm.
¾—Three Quarters Floating.
½—Semi-Floating
T—Torque Tube

GEAR RATIOS

(**) Only one ratio.

Drive and Torque

H—Hotchkiss (springs).
R—Radius Rods.
L—Parallel Torque Rods
T—Torque Arm.

WHEELS DRIVEN

2F—Forward unit of Rear Axle Group.
2R—Rear Unit of Rear Axle Group.
4R—Forward and rear units of Rear Axle Group.
6—All wheels.

CURRENT TRUCK SPECIFICATIONS

Make and Model	Chassis List Price	Wheelbase	Weight	Tire Sizes	Engine Details	Trans-mission	Rear Axle	Front Axle	Brakes	Frame

Line Number	MAKE AND MODEL	Chassis List Price	WHEELBASE Minimum Standard	WHEELBASE Maximum Standard	Gross Vehicle Weight for Normal Service	Chassis Weight (See definition)	TIRE SIZES D-dual rear S-single rear: Standard Front and Rear	TIRE SIZES: Maximum Authorized Tire Size (Duals unless noted)	ENGINE DETAILS: Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Main Bearings: Number, Diameter and Length	Governor Standard	TRANSMISSION: Make and Model	Forward Sp'ds	REAR AXLE: Make and Model	Gear and Type	Drive 'X' Torque	Gear Ratio Range in High	FRONT AXLE: Make and Model	BRAKES SERVICE: Make	Location	Type	Operat'n	Lining Area	Drum Area	Drum Material	Hand Location	Type	C-A Dimensions (Min. Std. W. B.)	FRAME: Side Rail Dimensions	Type
	Available																																		
1	CS200-SP		126	133	15000		7.00/20D	7.50/20	Wau 6BM	6-3⅝x4¼	263	5.9	180	78–2800	7–2⅝x10¼	N	WG T9	4	Tim 53440H	SF	H	** –6.67	Tim 32502H	L4IH				a	TX	Opt	10x3x¼		T
2	C-250-SP		105		18000		7.50/20D	8.25/20	Wau 6BZ	6-4x4¼	320	5.9	210	95–2500	7–2⅝x10¼	N	Fu 5A330	5	Tim 54411H	SF	R	6.83–7.4	Tim 32502H	L4IH	334	583	a	TX	Opt	10x3x¼		T
3	CS-250-SP		105		20000		8.25/20D	9.00/20	Wau 6BZ	6-4x4¼	320	5.9	210	95–2500	7–2⅝x10¼	N	Fu 5A330	5	Tim 54411H	SF	R	6.83–7.4	Tim 32502H	L4IH	334	583	a	TX	Opt	12x3x¼		T
4	CS-400-LSP		105		22000		9.00/20D	10.00/20	Wau 6BZ	6-4x4¼	320	5.9	210	95–2500	7–2⅝x10¼	N	Fu 5A330	5	Tim 56410H	SF	R	6.83–7.4	Tim 35000H	L4IH	334	583	a	TX	Opt	12x3x¼		T
5	CS-500-SP		105		24000		9.00/20D	10.00/20	Wau 6MZA	6-4⅛x4¾	404	5.9	286	112–2500	7–2⅝x12½	Y	Fu 5F430	5	Tim 56410H	SF	R	6.83–7.4	Tim 35000H	L4IH	380	660	a	TX	Opt	12x3x¼		T
6	CS-550-SP		105		32000		10.00/20D	11.00/20	Wau 6MZA	6-4⅛x4¾	404	5.9	286	112–2500	7–2⅝x12½	Y	Fu 5F430	5	Tim 58300H	SF	R	6.83–7.4	Tim 35000H	L4IH	380	660	a	TX	Opt	14x3x¼		T
7	CS-550-SPX		112		32000		11.00/20	11.00/24	Wau 6SRKR	6-4⅜x5½	517	5.9	365	125–2300	7–2⅝x12½	Y	Spi 7841^{V}	8	Tim 8200H	2F	R	** –7.84	Tim 26450H	L4IH	570	1051	a	TX	Opt	14x3x¼		T
8	CS-600		Opt	Opt	36000		11.00/20	11.00/24	Wau 145GK	6-5⅛x6	779	5.6	590	186–2000	7–3½x17¾	Y	Spi 7841^{V}	8	Tim 8200PA	2F	R	** –7.84	Tim 27452TW	L4IH	722	1051	a	TD	Opt	14x3x¼		T
9	CS-600-SP		Opt	Opt	40000		11.00/20	11.00/24	Cum HB600	6-4⅞x6	672	17.5	510	150–1800	7–4½x16½	Y	Spi 7841^{V}	8	T SW3012PA	WF	R	** –6.16	Tim 27452TW	L4IH			A	TD	Opt	14x3x¼		T
10	(D)CS-600-SP.Opt.		Opt	Opt	40000		11.00/20	11.00/24																											
11	Chevrolet DP	744	115	115	4600	2460	6.00/16S	158	O-Thrift Mas.	6–3½x3¼	216	6.5	174	90–3300	4–2¾x5½	N	Own*	3	Own	Hy	T	** –4.11	Own	O4IH	159	242	Co	2I	38¾	5¾x2¼x½		CCC
12	DR	833	125	125	5800	2675	158	7.00/17S	O-Thrift Mas.	6–3½x3¼	216	6.5	174	90–3300	4–2¾x5½	N	Own	3	Own	HyF	H	** –4.57	Own	O4IH	243	371	Co	2I	57¾	7x2¼x½		CCC
13	DS	833	134	134	8800	3020	7.00/17S	7.00/18	O-Thrift Mas.	6–3½x3¼	216	6.5	174	90–3300	4–2¾x5½	N	Own	4	Own	HyF	H	** –5.14	Own	O4IH	330	478	Co	2I	57¾	7x2¼x½		CCC
14	PJ	952	134	134	♦13000	3350	7.00/20S	7.00/20	O-Thrift Mas.*	6–3½x3¼	216	6.5	174	90–3300	4–2¾x5½	N	Own	4	□Own	HyF	H	5.43	Own	O4IH	330	478	Co	2I	83¼	7x2¼x½		FFP
15	PK	983	134	134	♦13000	3530	7.00/20S	7.00/20	O-Thrift Mas.*	6–3½x3¼	216	6.5	174	90–3300	4–2¾x5½	N	Own	4	□Own	HyF	H	5.43	Own	O4IH	330	478	Co	2I	57¾	7x2¼x½		FFP
16	(School bus)..PL	1118	160	160	12000	3790	6.50/20D	7.00/20	O-Load Mas.	6–3⅞x3½	235	6.6	192	93–3100	4–2¾x5½	Y	Own	4	□Own	HyF	H	5.43	Own	O4IH	330	478	Co	2I	83¼	7x2¼x½		FFP
17	PVS	1328	134	134	14000	4120	7.50/20D	7.50/20	O-Load Mas.	6–3⅞x3½	235	6.6	192	93–3100	4–2¾x5½	Y	Own	4	□Own	HyF	H	6.17	Own	O4IH	330	478	Co	2I	62½	7x2¼x½		FFP
18	PWS	1346	160	160	14000	4285	7.50/20D	8.25/20	O-Load Mas.	6–3⅞x3½	235	6.6	189	90–3100	4–2¾x5½	Y	Own	4	□Own	HyF	H	6.17	Own	O4IH	330	478	Co	2I	86	7x2¼x½		FFP
19	(c.o.e.) PP	●1567	109	109	16000	●4340	7.50/20D	8.25/20	O-Load Mas.	6–3⅞x3½	235	6.6	189	90–3100	4–2¾x5½	Y	Own	4	□Own	HyF	H	6.17	Own	O4IH	330	478	Co	2I	111½	7x2¼x½		FFP
20	(c.o.e.) PR	●1605	132	132	16000	●4560	7.50/20D	8.25/20	O-Load Mas.	6–3⅞x3½	235	6.6	189	90–3100	4–2¾x5½	Y	Own	4	□Own	HyF	H	6.17	Own	O4IH	330	478	Co	2I	57¾	7x2¼x½		FFP
21	(c.o.e.) PS	●1625	158	158	16000	●4640	7.50/20D	8.25/20	O-Load Mas.	6–3⅞x3½	235	6.6	192	93–3100	4–2¾x5½	Y	Own	4	□Own	HyF	H	6.17	Own	O4IH	330	478	Co	2I	83¼	7x2¼x½		FFP
22	PV	●1328	134	134	15000	4120	7.50/20D	8.25/20	O-Load Mas.	6–3⅞x3½	235	6.6	192	93–3100	4–2¾x5½	Y	Own	4	□Own	HyF	H	6.17	Own	O4IH	330	478	Co	2I	83¼	7x2¼x½		FFP
23	PW	1346	160	160	15000	4285	7.50/20D	8.25/20	O-Load Mas.	6–3⅞x3½	235	6.6	192	93–3100	4–2¾x5½	Y	Own																		
24	(School bus) .PX	1395	195	195	15000	4515	7.50/20D	8.25/20																											
25	Corbitt 18BG		137	Opt	18000		9.00/20	10.00/20	Con M6330	6-4x4¼	330	6.1	246	104–2800	7–2½x12	Y	Fu 5A33	5	TimH100DPH	HyF	H	** –5.29	Tim 32502H	L4IHV			a	TX	Var	8x3¼x¼		T
26	22BG		145	Opt	22000		10.00/20	11.00/22	Con B6371	6–4½x4⅝	371	6.0	280	100–2600	7–2⅝x13½	Y	Fu 5A43	5	Tim L100DPH	HyF	H	** –5.29	Tim 35000H	L4IHV			a	TX	Var	8x3¼x¼		T
27	25BG		148	Opt	25000		10.00/20	11.00/22	Con B6427	6–4⅝x4¾	427	5.9	325	127–2600	7–2⅝x13½	Y	Fu 5A43	5	Tim H100P	HyF	H	** –5.29	Tim 32502TW	Ws4IA			a	TX	60½	8½x3¼x⅝		T
28	(T) 18TG		137	137	18000		10.00/20	10.00/22	Con M6330	6–4½x4¼	330	6.1	246	104–2800	7–2⅝x12	Y	Fu 5A43	5	Tim L100P	HyF	H	** –5.29	Tim 35000TW	Ws4IA			a	2	60½	8½x3¼x⅝		T
29	(T) 22TG		145	145	22000		10.00/22	11.00/22	Con B6427	6–4⅝x4¾	427	5.9	325	127–2600	7–2⅝x13½	Y	Fu 5A620	5	Tim Q100P	HyF	H	** –6.17	Tim 35100TW	Ws4IA			a	2	60½	8½x3¼x⅝		T
30	(T) 25TG		148	148	25000		10.00/22	11.00/24	Con R6513	6–4½x5½	513	5.9	400	164–2600	7–3¼x14½	Y	Fu 5A650	5	Tim R100P	HyF	H	** –6.17	Tim 26450W	Ws4IA			a	2	60½	8½x3¼x⅝		T
31	(T) 28TG		148	148	28000		10.00/20	10.00/22	Con R6602	6–4⅜x5¾	602	5.9	460	183–2600	7–3¼x13½	Y	Fu 5A430	5	Tim L300P	dF	H	6.32–8.20	Tim 35000TW	Ws4IA			a	TX	60½	8½x3¼x⅝		T
32	(D) (T) 22TD		145	148	22000		10.00/20	10.00/22	Her DWXD	6–4¼x4¾	404	15	330	146–2600	. . . . .	Y	Fu 5A620	5	Tim Q300P	dF	H	6.53–8.53	Tim 35100TW	Ws4IA			a	2	60½	8½x3¼x⅝		T
33	(D) (T) 25TD		148	148	25000		10.00/22	11.00/22	Her DRXC	6–4⅜x5¾	529	14	380	133–2000	7–3½x13¾	Y	Fu 5A620	5	Tim Q100P	HyF	H	** –5.29	Tim 26450W	Ws4IA			a	2	60½	8½x3¼x⅝		T
34	(D) (T) 27TD		152	152	27000		10.00/22	11.00/24	Cum HB600	6–4⅞x6	672	17	500	125–1800	7–4½x16½	Y	Fu 5A920	5	Tim R100P	HyF	H	** –6.17	Tim 26450W	Ws4IA			a	2	60½	8½x3¼x⅝		T
35	(D) (T) 28TD		155	155	28000		10.00/22	11.00/24	Cum NHB600	6–5⅛x6	743	15	575	200–2100	. . . . .	Y	Fu 5A920																		
36	2-speed models																																		
37	(T) 18TG		137	137	18000		9.00/20	10.00/20	Con M6330	6–4x4¼	330	6.1	246	104–2800	7–2⅝x12	Y	Fu 5A330	5	Tim H300P	dF	H	6.13–8.15	Tim 32502TW	Ws4IA			a	TX	60½	8x3¼x¼		T
38	(T) 22TG		145	145	22000		10.00/20	10.00/22	Con B6427	6–4½x4⅝	427	5.9	325	127–2600	7–2⅝x13½	Y	Fu 5A430	5	Tim L300P	dF	H	6.32–8.20	Tim 35000TW	Ws4IA			a	2	60½	8½x3¼x⅝		T
39	(T) 25TG		148	148	25000		10.00/22	11.00/22	Con R6513	6–4½x5½	513	5.9	400	164–2600	7–3¼x13½	Y	Fu 5A620	5	Tim Q300P	dF	H	6.53–8.53	Tim 35100TW	Ws4IA			a	2	60½	8½x3¼x⅝		T
40	(T) 28TG		148	148	28000		10.00/22	11.00/24	Con R6602	6–4⅜x5¾	602	5.9	460	183–2600	7–3¼x13½	Y	Fu 5A650	5	Tim R300P	dF	H	6.53–8.53	Tim 26450W	Ws4IA			a	2	60½	8½x3¼x⅝		T
41	(D) (T) 27TD		152	152	27000		10.00/22	11.00/24	Cum HB600	6–4½x6	672	17	500	125–1800	7–4½x16½	Y	Fu 5A920	5	Tim R300P	dF	H	4.92–6.42	Tim 26450W	Ws4IA			a	2	60½	8½x3¼x⅝		T
42	(D) (T) 28TD		155	155	28000		10.00/22	11.00/24	Cum NHB600	6–5⅛x6	743	15	575	200–2100	. . . . .	Y	Fu 5A920																		
43	Sleeper Cabs																	5	Tim Q100P	HyF	H	** –6.17	Tim 35100TW	Ws4IA			a	2	60½	8½x3¼x⅝		T
44	(T) 25TG		173	173	25000		10.00/22	11.00/22	Con R6513	6–4½x5½	513	5.9	400	164–2600	7–3¼x13½	Y	Fu 5A620	5	Tim R100P	HyF	H	** –6.17	Tim 26450W	Ws4IA			a	2	60½	8½x3¼x⅝		T
45	(T) 28TG		173	173	28000		10.00/22	11.00/22	Con R6602	6–4⅜x5¾	602	5.9	460	183–2600	7–3¼x13½	Y	Fu 5A650	5	Tim Q300P	dF	H	6.53–8.53	Tim 35100TW	Ws4IA			a	2	60½	8½x3¼x⅝		T
46	(D) (T) 25TD		173	173	25000		10.00/22	11.00/24	Her DRXC	6–4⅜x5¾	529	14	380	133–2000	7–3½x13¾	Y	Fu 5A920	5	Tim Q100P	HyF	H	** –5.29	Tim 26450W	Ws4IA			a	2	60½	8½x3¼x⅝		T
47	(D) (T) 27TD		177	177	27000		10.00/22	11.00/24	Cum HB600	6–4½x6	672	17	500	125–1800	7–4½x16½	Y	Fu 5A920	5	Tim R100P	HyF	H	** –6.17	Tim 26450W	Ws4IA			a	2	60½	8½x3¼x⅝		T
48	(D) (T) 28TD		180	180	28000		10.00/22	11.00/24	Cum NHB600	6–5⅛x6	743	15	575	200–2100	. . . . .	Y	Fu 5A920																		
49	Diamond T 201		119	119	8000	2800	6.00/16	7.50/16S	Her CBQXLD	6–3⅞x4¼	236	6.5	177	82–3000	7–2½x10¼	N	WG T9	4	Cla R650	SF	H	4.5 –5.1	Cla F250	L4IH	210		A	TX	52	6x2¼x¼		T
50	306		127	150	11000	3750	7.00/20D	7.50/20	Her CBQXLD	6–3⅞x4¼	236	6.5	177	82–3000	7–2½x10¼	N	WG T9	4	Cla R750	SF	H	5.1 –6.3	Cla F266	L4IH	253		A	TX	60	7½x3x¼		TTT
51	306H		139	189	14700	4900	8.25/20D	8.25/20	Her CBJXE3	6–3⅝x4¼	245	6.5	175	87–2800	7–2½x10¼	Y	WG T9A	4	Eat A34-1350	SF	H	Dual Rge.	Cla F266	L4IHV	279		A	TX	60	8x3⅜x¼		TTT
52	404HH		139	163	13000	4800	7.50/20D	7.50/20	Her CBJXE3	6–3½x4¼	236	6.5	177	82–3000	7–2½x10¼	Y	WG T9A	4	Eat A35-1350	SF	H	Dual Rge.	Cla F450	L4IHV	283		A	TX	60	8x3⅜x¼		TTT
53	404SC		139	163	14700	4900	7.50/20D	8.25/20	Her CBJXE3	6–3½x4¼	245	6.5	175	87–2800	7–2½x10¼	Y	WG T9A	4	Cla R750	SF	H	Dual Rge.	Cla F452	L4IHV	363		A	TX	60	8x3⅜x¼		TTT
54	404SCH		139	163	14700	5050	8.25/20D	8.25/20	Her CBJXC◆	6–3¾x4¼	282	6.5	207	99–2800	7–2½x10¼	Y	WG T9A	4	Eat A35-1350	SF	H	Dual Rge.	Cla F450	L4IHV	363		A	TX	60	8x3⅜x¼		TTT
55	509		139	231	14700	5050	8.25/20D	8.25/20	Her CBJXD◆	6–4x4¼	320	6.5	240	113–3000	7–2½x10¼	Y	WG T9A	4	Eat A35-1350	SF	H	Dual Rge.	Cla F452	L4IHV	363		A	TX	60	8x3⅜x¼		TTT
56	509H		139	163	16200	5350	8.25/20D	9.00/20	Her CBJXC◆	6–4¼x4¼	282	6.5	207	99–2800	7–2½x10¼	Y	WG T9A	4	Eat A36-18000	SF	H	Dual Rge.	Cla F450	L4IHV	363		A	TX	60	8x3⅜x¼		TTT
57	509SC		106	175	14700	5050	8.25/20D	8.25/20	Her CBJXD◆	6–4x4¼	320	6.5	240	113–3000	7–2½x10¼	Y	Cla 205V	5	Eat A35-1350	SF	H	Dual Rge.	Cla F452	L4IHV	481		A	TD	60	10x3½x¼		TTT
58	614H		139	201	18800	6300	9.00/20△	9.00/20△	Her CBJXD	6–4¼x4¼	320	6.5	240	113–3000	7–2½x10¼	Y	Cla 270V	5	Eat A36-18000	SF	H	Dual Rge.	Cla F450	L4IHV	590		A	TD	60	10x3½x¼		TTT
59	703		130	190	23000	8600	10.00/20D	10.00/20	Con† T-6427	6–4¼x4¼	427	6.5	346	153–2600	7–2⅞x13½	Y	Cla 270V	5	Eat A2-18501	SF	R	Dual Rge.	Tim 35100TW	Ws4IA	648		A	TD	90	10½x3½x¼		TTT
60	809		130	190	28000	9000	10.00/20D	11.00/20	Con T-6427	6–4¼x4¼	427	6.5	346	153–2600	7–2⅞x13½	Y	Spi 6253–703	15	Tim R200P	2F	R	** –6.42	Tim 35100TW	Ws4IA	722		A	TD	90	10½x3½x¼		TTT
61	901		142	208	30000	11000	10.00/22D	11.00/20	Con R-6572	6–4¼x5⅝	572	6.0	440	190–2600	7–3¼x14½	Y	Spi 7851, 703	15	Tim U200P	2F	R	** –7.08	Tim 36021TW	Ws4IA	722		A	TD	90	10½x3½x¼		TTT
62	(D)(T) 910		172	172	36000	12400	10.00/22D	10.00/22	Cum HB600	6–4⅞x6	672	17.5	500	150–1800	7–4½x16¾	Y																		
63	Dodge WC		116		4600		6.00/16	6.50/16S	Own T-112	6–3¼x4¼	217	6.8	172	95–3600	4–2½x4.8	N	NP 36520	3	Own T112	HyS	H	3.73–4.78	Own T112	O4IH	174	264	Co	TX	40‡‡	6x2⅜x¼		CCC
64	WD-15		120		5200		TA-15S	TA-15S	Own T-112	6–3¼x4¼	217	6.8	172	95–3600	4–2½x4.8	N	NP 36520	3	Own T114	HyS	H	3.73–4.78	Own T114	O4IH	183	276	Co	TX	44‡‡	6x2⅜x¼		CCC
65	WD-20		120	133	6400		6.00/16▲	6.00/20	Own T-116	6–3¼x4¼	230	6.7	184	102–3600	4–2½x5.0	N	NP 37520	3	Own T116	HyF	H	3.90–4.89	Own T116	O4IH	197	294	Co	TX	44‡‡	6½x2⅜x¼		CCC
66	WF-21		135	160	9500		6.00/20‡	6.50/20	Own T-118	6–3⅜x4¼	236	6.6	192	109–3600	4–2½x5.0	N	NP 38750	4	Own T118	HyF	H	5.11–6.83	Own T118	O4IH	284	407	C	TX	60	7x2¾x.21		CCCC
67	WF-31		135	200	13500		6.00/20‡	7.50/20	Own T-118	6–3⅜x4¼	236	6.6	192	109–3600	4–2½x5.0	N	NP 38750	4	Eat A5-1350	SFd	H	Dual Rge.	Own T118	O4IH	284	407	C	TX	60	7x2¾x.21		CCCC
68	WFA-31		135	200	14000		6.00/20‡	7.50/20	Own T-128	6–3⅜x4¼	236	6.6	192	109–3600	4–2½x5.0	N	NP 38780	4	Own T128	HyF	H	5.11–6.83	Own T128	O4IH	284	407	C	TX	60	7x2¾x.21		CCCC
69	(c.o.e.) WFM-35		105	159	13500		6.00/20‡	8.25/20	Own T-128	6–3⅜x4¼	236	6.6	192	109–3600	4–2½x5.0	N	NP 38780	4	Eat A5-1350	SFd	H	Dual Rge.	Own T128	O4IH	284	407	C	TX	60	7x2¾x.21		CCCC
70	(c.o.e.) WFMA-35		105	159	14000		6.00/20D	8.25/20	Own T-120	6–3⅜x4½	250	6.6	204	114–3600	4–2½x5.0	N	NP 39240	5	Own T120	HyF	H	5.11–7.16	Own T120	O4IHV	359	503	C	TX	60‡‡	8x2¾x½		CCCC
71	WG-40		136	220	15500		6.00/20D	8.25/20	Own T-120	6–3⅜x4½	250	6.6	204	114–3600	4–2½x5.0	N	NP 39240	5	Eat A5-1350	SFd	H	Dual Rge.	Own T120	O4IHV	391	609	C	TX	60‡‡	8x2¾x½		CCCC
72	WGA-40		136	220	15500		6.00/20D	8.25/20▽	Own T-120	6–3⅜x4½	250	6.6	204	114–3600	4–2½x5.0	N	NP 39240	b	Eat 16500	HyF	H	5.11–7.16	Own T130	O4IHV	358	503	C	TX	60	8x2¾x½		CCCC
73	WGAX-40		136	220	16000		8.25/20D▽	8.25/20▽	Own T-130	6–3⅜x4½	250	6.6	204	114–3600	4–2½x5.0	N	NP 39290	5	Own T130	HyF	H	5.11–7.16	Own T130	O4IHV	359	503	C	TX	60	8x2¾x½		CCCC
74	(c.o.e.) WGM-40		105	159	16000		6.00/20D	8.25/20	Own T-130	6–3⅜x4½	250	6.6	204	114–3600	4–2½x5.0	N	NP 39290	5	Eat A5-1350	SFd	H	Dual Rge.	Own T130	O4IHV	391	609	C	TX	60	8x2¾x½		CCCC
75	(coe) WGMA-40		105	159	16500		8.25/20D▽	8.25/20▽	Own T-130	6–3⅜x4½	250	6.6	204	114–3600	4–2½x5.0	N	NP 39290	5	Eat 16500	HyF	H	5.11–7.16	Own T120	O4IHV	359	503	C	TX	60‡‡	8x2¾x½		CCCC
76	(coe) WGMAX-40		136	220	15500		6.50/20D	8.25/20	Own T-120	6–3⅜x4½	250	6.6	204	114–3600	4–2½x5.0	N	NP 39240	5	Own T120	HyF	H	5.11–7.16	Own T120	O4IHV	359	503	C	TX	60‡‡	8x2¾x½		CCCC
77	WH-45																																		

● Includes cab. † Or Continental T-6371, 6–4¼x4½ ° —Rear-9.00/20, 10 ply. □ Chevrolet own rear axle (6.17:1) available at extra cost on Models PJ-PK-PL. Chevrolet own 2-speed rear axle (6.13-8.10:1) available at extra cost on Models PVS-PWS-PP-PR-PS-PV-PW-PX. ♦ Max. gross vehicle weight can only be obtained by adding regular production options (at extra cost). ▽ With Spi 703A with 3 forward speeds.
‡ Front only; Rear 6.50/20S ◆ Or CBJXB 6-3⅝x4¼ ▲ Rear 7.00/16S △ Front only; rear 10.00/20D ● Own Loadmaster engine available on models PJ-PK-PL at extra cost

CURRENT TRUCK SPECIFICATIONS—*continued*

Line Number	MAKE AND MODEL	Chassis List Price	WHEEL-BASE Minimum Standard	WHEEL-BASE Maximum Standard	Gross Vehicle Weight for Normal Service	Chassis Weight (See definition)	TIRE SIZES D-dual rear S-single rear Standard Front and Rear	TIRE SIZES Maximum Authorized Tire Size (Duals unless noted)	ENGINE DETAILS Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Main Bearings Number, Diameter and Length	Governor Standard	TRANSMISSION Make and Model	Forward Sp'ds	REAR AXLE Make and Model	Gear and Type	Drive & Torque	Gear Ratio Range in High	FRONT AXLE Make and Model	BRAKES SERVICE Make Location Type Operat'n	Lining Area	Drum Area	Drum Material	Hand Location Type	C-A Dimension (Min. Std. W. B.)	FRAME Side Rail Dimensions	Type
	Dodge Cont'd.																													
1	WHA-45	.....	136	220	15500	.....	6.50/20D	8.25/20	Own T-120	6–3 7/8 x4 1/2	250	6.6	204	114–3600	4–2 1/2 x5.0	Y	NP 39240	5	Eat A5-1350	SFd	H	Dual Rge.	Own T120	O4IHV	359	503	C	TX	60 ##	8 1/4 x2 ## x 1/2	C
2	WHAX-45	.....	136	220	16000	.....	8.25/20D°	8.25/20°	Own T-120	6–3 7/8 x4 1/2	250	6.6	204	114–3600	4–2 1/2 x5.0	Y	NP 39240	5	Eat 16500	SFd	H	Dual Rge.	Own T120	O4IHV	391	609	C	TX	60 ##	8 1/4 x2 ## x 1/2	C
3	(c.o.e.) WHM-45	.....	105	159	16000	.....	6.50/20D	8.25/20	Own T-130	6–3 7/8 x4 1/2	250	6.6	204	114–3600	4–2 1/2 x5.0	Y	NP 39290	5	Own T130	HyF	H	5.11–7.16	Own T130	O4IHV	359	503	C	TX	60	8 1/4 x2 ## x 1/2	C
4	(coe) WHMA-45	.....	105	159	16000	.....	6.50/20D	8.25/20	Own T-130	6–3 7/8 x4 1/2	250	6.6	204	114–3600	4–2 1/2 x5.0	Y	NP 39290	5	Eat A5-1350	SFd	H	Dual Rge.	Own T130	O4IHV	359	503	C	TX	60	8 1/4 x2 ## x 1/2	C
5	(coe) WHMAX-45	.....	105	159	16500	.....	8.25/20D°	8.25/20°	Own T-130	6–3 7/8 x4 1/2	250	6.6	204	114–3600	4–2 1/2 x5.0	Y	NP 39290	5	Eat 16500	SFd	H	Dual Rge.	Own T130	O4IHV	391	609	C	TX	60	8 1/4 x2 ## x 1/2	C
6	WJ-55	.....	136	235	18500	.....	7.50/20D	9.00/20	Own T-136	6–3 1/4 x4 1/4	281	6.5	225	115–3200	7–3x11.2	Y	NP 39460	5	TimH100DPH	HyF	H	6.80–7.20	Tim T136	T4IHV	396	609	C	TX	60 ##	8 1/4 x2 ## x 1/2	C
7	WJA-55	.....	136	235	18500	.....	7.50/20D	9.00/20	Own T-136	6–3 1/4 x4 1/4	281	6.5	225	115–3200	7–3x11.2	Y	NP 39460	5	TimH300DPH	HyF	H	Dual Rge.	Tim T136	T4IHV	396	609	C	TX	60 ##	8 1/4 x2 ## x 1/2	C
8	WK-65	.....	136	196	21000	.....	8.25/20D	10.00/20	Own T-135	6–3 3/4 x5	331	6.5	270	128–3000	7–3x11.2	Y	NP 39440	5	Tim L100DPH	HyF	H	6.83–7.40	TI 32500NX14	T4IHV	424	666	C	TX	60 ##	8 1/4 x2 ## x 1/2	P
9	WKA-65	.....	136	196	21000	.....	8.25/20D	10.00/20	Own T-135	6–3 3/4 x5	331	6.5	270	128–3000	7–3x11.2	Y	NP 39440	5	Tim L300DPH	HyF	H	Dual Rge.	TI 32500NX14	T4IHV	424	666	C	TX	60 ##	8 1/4 x2 ## x 1/2	P
10	WR-65	.....	136	196	23000	.....	10.0/20D*	10.00/20*	Own T-135	6–3 3/4 x5	331	6.5	270	128–3000	7–3x11.2	Y	NP 39440	5	Tim 100DPH	HyF	H	6.83–7.80	Tim35020NX9	T4IHV	486	770	C	TX	60 ##	8 1/4 x2 ## x 1/2	C
11	WRA-65	.....	136	196	23000	.....	10.0/20D*	10.00/20*	Own T-135	6–3 3/4 x5	331	6.5	270	128–3000	7–3x11.2	Y	NP 39440	5	Tim 300DPH	HyF	H	Dual Rge.	Tim35020NX9	T4IHV	486	770	C	TX	60 ##	8 1/4 x2 ## x 1/2	C
	Dodge (School Bus)																													
12	WF-32-S	.....	160	....	14500	.....	6.50/20D	7.50/20	Own T-118	6–3 7/8 x4 1/4	236	6.6	192	109–3600	4–2 1/2 x5.0	N	NP 38750	4	Own T118	HyF	H	6.28–6.83	Own T118	O4IH	284	407	C	TX	....	7x2 3/4 x .21	C
13	WF-34-S	.....	178	....	14500	.....	7.00/20D	7.50/20	Own T-118	6–3 7/8 x4 1/4	236	6.6	192	115–3200	4–2 1/2 x5.0	N	NP 38750	4	Own T118	HyF	H	6.28–6.83	Own T118	O4IHV	284	407	C	TX	....	7 1/4 x2 ## x 1/4	C
14	WF-36-S	.....	200	....	14500	.....	7.50/20D	7.50/20	Own T-118	6–3 7/8 x4 1/4	236	6.6	192	115–3200	4–2 1/2 x5.0	N	NP 38750	4	Own T118	HyF	H	6.28–6.83	Own T118	O4IHV	284	407	C	TX	....	7 1/4 x2 ## x 1/4	P
15	WH-49-S	.....	220	....	16000	.....	7.50/20D	8.25/20	Own T-120	6–3 7/8 x4 1/2	250	6.6	204	114–3600	4–2 1/2 x5.0	Y	NP 39240	5	Own T120	HyF	H	6.28–7.16	Own T120	O4IHV	359	503	C	TX	....	8 1/4 x2 ## x 1/2	P
16	WJ-59-S	.....	235	....	18500	.....	9.00/20D	9.00/20	Own T-136	6–3 1/4 x4 1/4	282	6.5	225	115–3200	7–3x11.2	Y	NP 39460	5	TimH100DPH	HyF	H	6.8–7.2	Tim32525NX1	T4IHV	359	503	C	TX	....	8 1/4 x2 1/2 x 1/2	P
17	Duplex.....T	.....	136	220	18000	6600	8.25/20	9.00/20	Her JXD	6–4x4 1/4	320	6.2	240	113–3000	7–2 1/2 x10 ##	Y	Fu 5B330	5	Tim H100	B	H	** –6.83	Tim 32502	L4IHV	420	654	A	TX	59	9 1/4 x3 1/2 x 1/2	C
18	.....R	.....	136	220	25000	8820	9.00/20	10.00/20	Her WXLC-3	6–4 1/4 x4 1/4	404	5.8	312	139–2600	7–2 1/2 x13 1/4	Y	Fu 5A43	4	Tim 98415	DF	R	6.53–8.53	Tim 35500	L4IHV	730	1016	A	TX	79 1/4	9 1/4 x3 1/2 x 1/2	C
19	.....JHA	.....	148	220	28000	9800	10.00/20D	11.00/20	Her RXB	6–4 1/2 x5 1/4	501	5.4	360	121–2200	7–3x14	Y	Fu 5A620	5	Tim Q300	2F	R	** –9.81	Tim 26450	Ws4IA	912	1311	A	TX	79	10 1/4 x3 1/2 x 1/2	C
20	.....KHA	.....	148	220	32000	10500	11.00/20	11.00/20	Her RXC	6–4 1/2 x5 1/4	529	5.4	395	132–2300	7–3x14 1/4	Y	Fu 5A620	5	Tim U-200	2F	R	** –9.81	Tim 26450	Ws4IA	912	1311	A	TX	79	10 1/4 x3 1/2 x 1/2	C
21	Federal.....16M	.....	146	194	13500	4460	7.50/20D	.....	Her JXE	6–3 1/2 x4 1/4	245	6.5	180	87–3000	7–2 1/2 x10 ##	N	WG T9	4	T 53547DPH	BF	H	** –5.66	Tim 30000HX	L4IHV	310	482	a	TX	67	8 1/4 x2 7/8 x 1/4	T
22	.....18M	.....	146	194	15000	4700	8.25/20D	.....	Her JXBF	6–3 3/4 x4 1/4	263	6.5	189	93–3000	7–2 1/2 x10 ##	N	WG T9	4	Tim 54412DP	SF	H	** –5.83	Tim 30003H	LT4IHV	314	532	a	TX	67	8 1/4 x2 1/2 x 1/2	T
23	.....18M2	.....	146	194	15000	4830	8.25/20D	.....	Her JXBF	6–3 3/4 x4 1/4	263	6.5	189	93–3000	7–2 1/2 x10 ##	N	WG T9	4	Tim 94440DP	dF	H	6.06–8.11	Tim 30003H	LT4IHV	314	532	a	TX	67	8 1/4 x2 1/2 x 1/2	T
24	.....29M	.....	146	194	20000	5500	9.00/20D	.....	Her JXDF	6–4x4 1/4	320	6.5	246	102–2800	7–2 1/2 x10 ##	N	Cla 205V	5	Tim 56410DP	SF	H	** –6.83	Tim 32514H	LT4IHV	390	654	a	TX	67	8 1/4 x2 1/2 x 1/2	T
25	.....29M2	.....	146	194	20000	5690	9.00/20D	.....	Her JXDF	6–4x4 1/4	320	6.5	246	102–2800	7–2 1/2 x10 ##	N	Cla 205V	5	Tim 96710DP	dF	H	6.07–8.12	Tim 32514H	LT4IHV	390	654	a	TX	67	8 1/4 x2 1/2 x 1/2	T
26	.....29MA	.....	155	194	20000	5950	9.00/20D	.....	Her JXDF	6–4x4 1/4	320	6.5	246	102–2800	7–2 1/2 x10 ##	N	Cla 205V †	15	Tim 58301DP	SF	H	** –6.83	Tim 32514H	LT4IHV	486	820	a	TD	78	8 1/4 x2 1/2 x 1/2	T
27	.....45M	.....	143	203	24000	8005	10 00/22D	10.00/24	Con B6427	6–4 7/8 x4 1/2	427	6.4	332	133–2600	7–2 1/2 x13 1/2	Y	Cla 270VO	5	Tim 58301P	SF	R	** –6.83	Tim 35011TW	TW4IA	606	933	a	TD	60 1/2	10 1/2 x3 1/2 x 1/2	T
28	.....45M2	.....	143	203	24000	8380	10 00/22D	10.00/24	Con B6427	6–4 7/8 x4 1/2	427	6.4	332	133–2600	7–2 1/2 x13 1/2	Y	Cla 270VO	5	Tim 98415P	dF	R	6.53–8.53	Tim 35011TW	TW4IA	606	933	a	TD	60 1/2	10 1/2 x3 1/2 x 1/2	T
29	.....55M	.....	143	203	27000	8485	11.00/22D	11.00/24	Con B6427	6–4 7/8 x4 1/2	427	6.4	332	133–2600	7–2 1/2 x13 1/2	Y	Cla 270VO	5	Tim S-200P	2F	R	** –7.08	Tim 36021TW	TW4IA	722	1051	a	TD	60 1/2	10 1/2 x3 1/2 x 1/2	T
30	.....55MA	.....	155	203	27000	8765	11.00/22D	11.00/24	Con B6427	6–4 7/8 x4 1/2	427	6.4	332	133–2600	7–2 1/2 x13 1/2	Y	Cla 270V †	15	Tim S-200P	2F	R	** –7.08	Tim 36021TW	TW4IA	722	1051	a	TD	72 1/2	10 1/2 x3 1/2 x 1/2	T
31	.....60MA	.....	155	203	28000	9600	11.00/22D	11.00/24	Con 22R	6–4 1/2 x5 1/4	501	5.4	384	148–2400	7–2 3/4 x14 1/2	Y	Fu 5A65 ▲	15	Tim 8200P	2F	R	** –7.08	Tim 36021TW	Tw4IA	722	1051	a	FX	72 1/2	10 1/2 x3 1/2 x 1/2	T
32	.....60M2	.....	143	203	28000	9370	11.00/22D	11.00/24	Con 22R	6–4 1/2 x5 1/4	501	5.4	384	148–2400	7–2 3/4 x14 1/2	Y	Fu 5A650	5	Tim 8300P	HyF	R	6.53–8.53	Tim 36021TW	Tw4IA	722	1051	a	TX	60 1/2	10 1/2 x3 1/2 x 1/2	T
33	.....65M2	.....	141	201	30000	9995	11.00/22D	11.00/24	Con R6602	6–4 7/8 x5 3/4	602	6.1	464	200–2600	7–3 1/4 x14 1/2	Y	Fu 5A650	5	Tim 8300P	HyF	R	6.53–8.53	Tim 36000TW	Ws4IA	722	1051	a	TX	60 1/2	10 1/2 x3 1/2 x 1/2	T
34	.....65MA	.....	153	201	30000	10225	11.00/22D	11.00/24	Con R6602	6–4 7/8 x5 3/4	602	6.1	464	200–2600	7–3 1/4 x14 1/2	Y	Fu 5A65 ▲	15	Tim 8200P	HyF	R	** –7.08	Tim 36000TW	Ws4IA	722	1051	a	TX	72 1/2	10 1/2 x3 1/2 x 1/2	T
	Ford																													
	Light Duty																													
35	Chs. Cowl..79C	$826	114	114	4700	$2276	6.50/16S	6.50/16S	Own 59C	8–3 1/8 x3 1/4	239	6.7	180	100–3800	3–2 1/2 x4.96	N	Own 21C	3	Own 21C	S3/4	H	** –3.78	Own 21C	O4IH	162	264	Co	21	40.06	5.92x2 1/2 x.15	T
36	Chs. Cowl..7GC	$768	114	114	4700	$2276	6.50/16S	6.50/16S	Own 5GC	6–3.3x4.4	226	6.7	180	90–3300	4–2 1/2 x4.88	N	Own 2GC	3	Own 21C	S3/4	H	** –3.78	Own 21C	O4IH	162	264	Co	21	40.06	5.92x2 1/2 x.15	T
37	Chs. Cowl...79Y	$1002	122	122	6600	$2776	7.50/17S▽	7.50/17S▽	Own 59Y	8–3 1/8 x3 1/4	239	6.7	180	100–3800	3–2 1/2 x4.96	N	Own 51Y	4	Own 21Y	SF	H	** –4.85	Own 21Y	O4IH	187	308	Co	21	48.06	6x2 1/4 x.19	T
38	Chs. Cowl..7GY	$944	122	122	6600	$2776	7.50/17S▽	7.50/17S▽	Own 5GY	6–3.3x4.4	226	6.7	180	90–3300	4–2 1/2 x4.88	N	Own 51Y	4	Own 21Y	SF	H	** –4.85	Own 21Y	O4IH	187	308	Co	21	48.06	6x2 1/4 x.19	T
	Heavy Duty Dump																													
39	Chs. Cowl..79U	$1180	134	134	12500	$3911	7.50/20D	7.50/20	Own 59T	8–3 1/8 x3 3/4	239	6.7	180	100–3800	3–2 1/2 x4.96	N	Own 41T	4	Own 01T	SF	H	** –6.66	Own 01T	O4IH	303	506	Co	TX	60.06	7x2 3/4 x.21	LT
40	Chs. Cowl..7GU	$1122	134	134	12500	$3911	7.50/20D	7.50/20	Own 5GT	6–3.3x4.4	226	6.7	180	90–3300	4–2 1/2 x4.88	N	Own 4GT	4	Own 01T	SF	H	** –6.66	Own 01T	O4IH	303	506	Co	TX	60.06	7x2 3/4 x.21	LT
	Heavy Duty Truck																													
41	Chs. Cowl..79T	$1174	134	134	12500	$3906	7.50/20D	7.50/20	Own 59T	8–3 1/8 x3 3/4	239	6.7	180	100–3800	3–2 1/2 x4.96	N	Own 41T	4	Own 01T	SF	H	** –6.66	Own 01T	O4IH	303	506	Co	TX	60.06	7x2 3/4 x.21	LT
42	Chs. Cowl..7GT	$1116	134	134	12500	$3906	7.50/20D	7.50/20	Own 5GT	6–3.3x4.4	226	6.7	180	90–3300	4–2 1/2 x4.88	N	Own 4GT	4	Own 01T	SF	H	** –6.66	Own 01T	O4IH	303	506	Co	TX	60.06	7x2 3/4 x.21	LT
43	Chs. Cowl..798T	$1210	158	158	12500	$3986	7.50/20D	7.50/20	Own 59T	8–3 1/8 x3 3/4	239	6.7	180	100–3800	3–2 1/2 x4.96	N	Own 41T	4	Own 01T	SF	H	** –6.66	Own 01T	O4IH	303	506	Co	TX	84.06	7x2 3/4 x.21	LT
44	Chs. Cowl.7G8T	$1152	158	158	12500	$3986	7.50/20D	7.50/20	Own 5GT	6–3.3x4.4	226	6.7	180	90–3300	4–2 1/2 x4.88	N	Own 4GT	4	Own 01T	SF	H	** –6.66	Own 01T	O4IH	303	506	Co	TX	84.06	7x2 3/4 x.21	LT
	Heavy Duty COE																													
45	Cab Chs...791W	$1491	101	101	13500	$4333	7.50/20D	7.50/20	Own 59W	8–3 1/8 x3 3/4	239	6.7	180	100–3800	3–2 1/2 x4.96	N	Own 41T	4	Own 01T	SF	H	** –6.66	Own 01W	O4IH	303	506	Co	TX	60.06	7x2 3/4 x.21	T
46	Cab Chs...79W	$1535	134	134	13500	$4468	7.50/20D	7.50/20	Own 59W	8–3 1/8 x3 3/4	239	6.7	180	100–3800	3–2 1/2 x4.96	N	Own 41T	4	Own 01T	SF	H	** –6.66	Own 01W	O4IH	303	506	Co	TX	93.06	7x2 3/4 x.21	LT
47	Cab Chs..798W	$1571	158	158	13500	$4543	7.50/20	7.50/20	Own 59W	8–3 1/8 x3 3/4	239	6.7	180	100–3800	3–2 1/2 x4.96	N	Own 41T	4	Own 01T	SF	H	** –6.66	Own 01W	O4IH	303	506	Co	TX	117.1	7x2 3/4 x.21	LT
	Heavy Duty Dump																													
48	Chs. Cowl.79UH	$1467	134	134	14500	$4076	8.25/20▲	8.25/20▲	Own 59T	8–3 1/8 x3 3/4	239	6.7	180	100–3800	3–2 1/2 x4.96	N	Own 41T	4	Own 59T-M■	SFD	H	5.83–8.11	Own 01T	O4IHV	303	506	Co	TX	60.06	7x2 3/4 x.21	LT
49	Chs.Cowl.7GUH	$1409	134	134	14500	$4076	8.25/20▲	8.25/20▲	Own 5GT	6–3.3x4.4	226	6.7	180	90–3300	4–2 1/2 x4.88	N	Own 4GT	4	Own 59T-M■	SFD	H	5.83–8.11	Own 01T	O4IHV	303	506	Co	TX	60.06	7x2 3/4 x.21	LT
	Heavy Duty Truck																													
50	Chs. Cowl.79TH	$1462	134	134	14500	$4071	8.25/20▲	8.25/20▲	Own 59T	8–3 1/8 x3 3/4	239	6.7	180	100–3800	3–2 1/2 x4.96	N	Own 41T	4	Own 59T-M■	SFD	H	5.83–8.11	Own 01T	O4IHV	303	506	Co	TX	60.06	7x2 3/4 x.21	LT
51	Chs.Cowl.7GTH	$1404	134	134	14500	$4071	8.25/20▲	8.25/20▲	Own 5GT	6–3.3x4.4	226	6.7	180	90–3300	4–2 1/2 x4.88	N	Own 4GT	4	Own 59T-M■	SFD	H	5.83–8.11	Own 01T	O4IHV	303	506	Co	TX	60.06	7x2 3/4 x.21	LT
52	Chs.Cowl.798TH	$1498	158	158	14500	$4151	8.25/20▲	8.25/20▲	Own 59T	8–3 1/8 x3 3/4	239	6.7	180	100–3800	3–2 1/2 x4.96	N	Own 41T	4	Own 59T-M■	SFD	H	5.83–8.11	Own 01T	O4IHV	303	506	Co	TX	84.06	7x2 3/4 x.21	LT
53	Chs.Cowl.7G8TH	$1440	158	158	14500	$4151	8.25/20▲	8.25/20▲	Own 5GT	6–3.3x4.4	226	6.7	180	90–3300	4–2 1/2 x4.88	N	Own 4GT	4	Own 59T-M■	SFD	H	5.83–8.11	Own 01T	O4IHV	303	506	Co	TX	84.06	7x2 3/4 x.21	LT
	Heavy Duty COE																													
54	Cab Chs.791WH	$1779	101	101	15000	$4498	8.25/20▲	8.25/20▲	Own 59W	8–3 1/8 x3 3/4	239	6.7	180	100–3800	3–2 1/2 x4.96	N	Own 41T	4	Own 59T-M■	SFD	H	5.83–8.11	Own 01W	O4IHV	303	506	Co	TX	60.06	7x2 3/4 x.21	T
55	Cab Chs..79WH	$1823	134	134	15000	$4633	8.25/20▲	8.25/20▲	Own 59W	8–3 1/8 x3 3/4	239	6.7	180	100–3800	3–2 1/2 x4.96	N	Own 41T	4	Own 59T-M■	SFD	H	5.83–8.11	Own 01W	O4IHV	303	506	Co	TX	93.06	7x2 3/4 x.21	LT
56	Cab Chs.798WH	$1859	158	158	15000	$4708	8.25/20▲	8.25/20▲	Own 59W	8–3 1/8 x3 3/4	239	6.7	180	100–3800	3–2 1/2 x4.96	N	Own 41T	4	Own 59T-M■	SFD	H	5.83–8.11	Own 01W	O4IHV	303	506	Co	TX	117.1	7x2 3/4 x.21	LT
	School Bus																													
57	Cowl Chs.,.798T	$1260	158	158	13500	$3970	7.50/20D	7.50/20	Own 59T	8–3 1/8 x3 3/4	239	6.7	180	100–3800	3–2 1/2 x4.96	N	Own 41T	4	Own 01T	SF	H	** –6.66	Own 01T	O4IH	303	506	Co	TX	.....	7x2 3/4 x.21	T
58	Cowl Chs..7G8T	$1202	158	158	13500	$3970	7.50/20D	7.50/20	Own 5GT	6–3.3x4.4	226	6.7	180	90–3300	4–2 1/2 x4.88	N	Own 4GT	4	Own 01T	SF	H	** –6.66	Own 01T	O4IH	303	506	Co	TX	.....	7x2 3/4 x.21	T
59	Cowl Chs.,.794T	$1353	194	194	14500	$4140	7.50/20D	7.50/20	Own 59T	8–3 1/8 x3 3/4	239	6.7	180	100–3800	3–2 1/2 x4.96	N	Own 41T	4	Own 01T	SF	H	** –6.66	Own 01T	O4IH	303	506	Co	TX	.....	7x2 3/4 x.21	LT
60	Cowl Chs..7G4T	$1295	194	194	14500	$4140	7.50/20D	7.50/20	Own 5GT	6–3.3x4.4	226	6.7	180	90–3300	4–2 1/2 x4.88	N	Own 4GT	4	Own 01T	SF	H	** –6.66	Own 01T	O4IH	303	506	Co	TX	.....	7x2 3/4 x.21	LT
61	Hudson (1/2 T. Pkp)	.....	128	128	4810	.....	6.50/16-6	6.50/16-6	Own 58	6–3x5	212	6.5	168	102–4000	3– ▲▲	N	Own	3	Own	S1/2	H	** –4.55	Own	B4IH	141	242	C	21	42 1/2	7 1/2 x1 1/4 x 1/2	B
62	Intern'l (2)...KB-1	800	113	125	4400	2190	6.00/16-4	7.00/16	Own GRD214	6–3 7/8 x4 1/2	213	6.3	160	82–3400	4–2 5/8 x6 ##	N	Own HDS-B	3	Own R1050	S1/2	H	3.72–5.11	Own F50	L41H	164	316	e	FX	38	6x2 1/4 x 1/4	C
63	.....KB-1M	755	102	113	4600	2090	6.00/16-4	6.50/16-6	Own GRD214	6–3 7/8 x4 1/2	213	6.3	160	82–3400	4–2 5/8 x6 ##	N	O SA-HDS-B	3	Own R1050	S1/2	H	3.72–5.11	Own F150	L41H	164	316	e	FX	....	6 1/2 x2 1/4 x 1/2	C
64	.....KB-2	840	125	125	5200	2225	6.00/16-4	7.00/16-6	Own GRD214	6–3 7/8 x4 1/2	213	6.3	160	82–3400	4–2 5/8 x6 ##	N	Own HDS-B	3	Own R1050	S1/2	H	3.72–5.11	Own F50	L41H	164	316	e	FX	50	6 1/2 x2 1/4 x 1/2	C
65	.....KB-3	980	130	....	6650	2970	7.00/16-6	7.50/16-6	Own GRD214	6–3 7/8 x4 1/2	213	6.3	160	82–3400	4–2 5/8 x6 ##	N	Own HDS-B	3	Own R1150	SF	H	4.22–5.28	Own F150	L41H	198	367	e	FX	55	6 1/2 x2 1/4 x 1/2	C
66	.....KB-3M	905	102	113	7000	2525	7.00/16-6	7.50/16-8	Own GRD214	6–3 7/8 x4 1/2	213	6.3	160	82–3400	4–2 5/8 x6 ##	N	Own H41B	4	Own R1150	SF	H	4.22–5.28	Own F150	L41H	221	367	e	TX	....	6 1/2 x2 1/4 x 1/2	C

* Rear 11.00/20D.
‡ For shorter wheel bases—10x3 1/2 x3 1/2.
▲ Auxiliary trans. Spicer 703F, three forward speeds.
$ List price of vehicle to nearest dollar.
▽ Rear Only; Front 7.00/17.
▲▲ Diameter front 2.343, Center 2.375, Rear 2.406.
‡ Weight of complete vehicle with 5 gal. of gas.
▽ △ Rear Only; Front 7.50/20.
† Auxiliary trans. Spicer 6231B, three forward speeds.
■ Two speed rear axle with vacuum shift and power braking.
‡ For shorter wheel bases 8 1/2 x2 3/4 x7/32.
* Rear 9.00/20, 10 ply.

CURRENT TRUCK SPECIFICATIONS—*continued*

▲ For shorter wheel bases—10x3½x¼.
▲ Auxiliary trans. Spicer 703F, three forward speeds.
‡ Diameter front 2.343. Center 2.375, Rear 2.406.
‡ Weight of complete vehicle with 5 gal. of gas.
Total length 5.750.
† Auxiliary trans. Spicer 6231B, three forward speeds.
■ Two speed rear axle with vacuum shift and power braking.
° Rear 9.00/20, 10 ply.

CURRENT TRUCK SPECIFICATIONS—*continued*

Line Number	MAKE AND MODEL	Chassis List Price	WHEEL-BASE Minimum Standard	WHEEL-BASE Maximum Standard	Gross Vehicle Weight for Normal Service	Chassis Weight (See definition)	TIRE SIZES D-dual rear S-single rear Standard Front and Rear	TIRE SIZES Maximum Authorized Tire Size (Duals unless noted)	ENGINE DETAILS Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Main Bearings Number, Diameter and Length	Governor Standard	TRANSMISSION Make and Model	Forward Sp'ds	REAR AXLE Make and Model	REAR AXLE Gear and Type	REAR AXLE Drive & Torque	REAR AXLE Gear Ratio Range in High	FRONT AXLE Make and Model	BRAKES SERVICE Make Location Type Operation	BRAKES SERVICE Lining Area	BRAKES SERVICE Drum Area	BRAKES SERVICE Drum Material	BRAKES Hand Location Type	C-A Dimensions (Min. Std. W. B.)	FRAME Side Rail Dimensions	FRAME Type
	Intern'l Cont'd																														
1	(a) KB-5	1130	135	177	13500	3630	6.50/20D	8.25/20	O-GRD 233	6–3⅞x4½	233	6.3	181	93–3400	4–2⅝x6	N	Own H41B	4	Own R1360	SF	H	5.28–7.16	Own F350	LH4IH	294	509	c	TX	60	8x3x⅞	T
2	(a) KB-6	1625	134	176	14500	4530	7.00/20D	8.25/20	Own BLD250	6–3⅞x4½	251	6.3	200	100–3200	4–2⅝x5	N	Own WT97A	5	Own R1450	SF	H	5.62–7.16	Own F470	LH4IHV	305	539	c	TX	60	8¼x3x⅞	T
3	(a) KB-7	2075	134	176	16500	4960	7.50/20D	9.00/20	O-BLD 269	6–3⅞x4½	269	6.3	222	100–3000	4–2.7x5			5	Own R1560	SF	H	6.50–7.16	Own F470	LH4IHV	368	633	c	TX	60	8¼x3x⅞	T
4	(a) KB-8	3150	137	197	20000	6485	9.00/20D	10.00/20	O-RED 361	6–4⅛x4½	361	6.3	282	126–3000	7–3¼x10	Y	Own F51	5	Own R1572	SF	H	6.43–8.51	Own F553	LH4IHV	407	709	c	PX	60	8¼x3½x1⅛	T
5	(a) KB-10	4000	149	197	22500	7310	10.00/20D	11.00/20	Own RED401	6–4⅛x5	401	6.3	318	140–2800	7–3¼x10	Y	Own F52	5	Own R1676	SF	H	6.43–8.05	Own F653	LH4IHV	484	820	c	PX	72	9½x3½x1⅛	T
6	(a) KBR-11	5500	149	197	27000	▲8335	10.00/20D	12.00/20	O-RED 450	6–4⅛x5	450	6.3	360	148–2600	7–3¼x10	Y	Own F54	5	Tim S200P	2SF	H	6.42–8.05	Own F750	WW4IA	616	1030	G	PX	72	10x3½x⅞	T
7	KBR-12	6750	155	179	28500	9950	11.00/20	12.00/20	O-Con. R6596	6–4⅛x5½	586	6.0	475	200–2600	7–3¼x13	Y	Own F55	5	Tim S200P	2F	H	** –6.42	Own F750	BW4IA	746	....	GS	FX	66	10x3½x⅞	C
8	W-3042-H		179	227	30000	12140	10.00/20	11.00/22	O-Con. S6749	6–5½x5½	749	6.0	554	254–2600	7–3¾x15¼	Y	Spicer 7741	4	Tim S200P	2F	H	** –6.42	Own S6303	BW4IA	690	....	G	TX	84	10x3½x⅞	C
9	Kenworth (D) 521		161	215	35000	12200	10 00/20	11.00/22	Cum HB6	6–4⅞x6	672	17.	500	200–2100	7–4½x16½	Y	BL 7841	4	Tim U200P	DR	H	6.42–7.84	Tim 36000 TW	Ws4IA	752	1050	a	TD	72	9¼x3¼x⅛	C
10	(D) 522		187	245	43000	12900	10.00/20	11.00/22	Cum HB6	6–4⅞x6	672	17.	500	150–1800	7–4½x16½	Y	BL 7841	4	Tim U200P				Tim 36000 TW	Ws4IA	1135	....				9½x3¼x⅛	
11	587		150	215	30000	10130	10.00/20	11.00/22	Bu LO525	6–4½x5½	525	5.5	385	135–2200	7–3x11½	Y	Fu 5A620	5	Tim U200P				Tim 35100 TW	Ws4IA	752	....				9½x3¼x⅛	
12	Mar. Her. DVL-1		90	118	8200	4200	7.50/16S	8.25/18S	Willys MB	4–3½x4¾	134	6.4	105	60–4000	3–2.33x5.48	Y	Own	3	(Front Drive)			7.10	Own	4IH	202	327	M2			None	
13	Reo 19A		125	125	14000	▲4840	7.50/20	8.25/20	Own GC245	6–3½x4¼	245	6.2	191	89–3100	7–2½x10.7	Y	WG T97	4	Tim 53000	SBF	H	5.66–6.16	Tim 30000	T 4IVH▼	311	483	Co	TX	64½	8¼x2½ x¼	T
14	19AT		125	125	14000	▲5280	8.25/20	8.25/20	Own GC245	6–3½x4¼	245	6.2	191	89–3100	7–2½x10.7	Y	WG T97	4	Tim 93000	dF	H	6.03–8.00	Tim 30000	T 4IVH▼	311	483	Co	TX	64½	8¼x2½ x¼	T
15	19B		145	145	14000	▲5000	7.50/20	8.25/20	Own GC245	6–3½x4¼	245	6.2	191	89–3100	7–2½x10.7	Y	WG T97	4	Tim 53000	SBf*	H	5.66–6.16	Tim 30000	T 4IVH▼	311	483	Co	TX	84⅝	8¼x2½ x¼	T
16	19C		165	165	14000	▲5040	8.25/20	8.25/20	Own GC245	6–3½x4¼	245	6.2	191	89–3100	7–2½x10.7	Y	WG T97	4	Tim 53000	SBf*	H	5.66–6.16	Tim 30000	T 4IVH▼	311	483	Co	TX	104⅝	8¼x2½ x¼	T
17	21T		130	130	18000	▲6380	9.00/20	9.00/20	Own GC288	6–3½x5	288	6.2	225	96–3000	7–2½x10.7	Y	Cla 205V	5	Tim 95000	dF	H	6.08–8.12	Tim 31000	T 4IVH▼	344	583	Co	TX	69⅝	9x3x⅛	T
18	21B		145	145	18000	▲6080	8.25/20	9.00/20	Own GC288	6–3½x5	288	6.2	225	96–3000	7–2½x10.7	Y	Cla 205V	5	Tim 55000	SBf*	H	** –6.28	Tim 31000	T 4IVH▼	344	583	Co	TX	84⅝	9x3x⅛	T
19	21C		165	165	18000	▲6180	9.00/20	9.00/20	Own GC288	6–3½x5	288	6.2	225	96–3000	7–2½x10.7	Y	Cla 205V	5	Tim 55000	SBf*	H	** –6.28	Tim 31000	T 4IVH▼	344	583	Co	TX	104⅝	9x3x⅛	C
20	22T		130	130	20500	▲6630	9.00/20	9.00/20	Own GC310	6–3⅝x5	310	6.2	243	101–3000	7–2½x10.7	Y	Cla 205V	5	Tim 96000	dF	H	6.08–8.12	Tim 31000	T 4IVH▼	344	583	Co	TX	69⅝	9½x3⅛ 4x5½	C
21	22B		145	145	20500	▲6410	9.00/20	9.00/20	Own GC310	6–3⅝x5	310	6.2	243	101–3000	7–2½x10.7	Y	Cla 205V–VO	5	Tim 76000	2F	H	6.16–7.3	Tim 31000	T 4IVH▼	344	583	Co	TX	81⅝	9½x3⅛ 4x5½	C
22	22C		165	165	20500	▲6380	9.00/20	9.00/20	Own GC310	6–3⅝x5	310	6.2	243	101–3000	7–2½x10.7	Y	Cla 205V	5	Tim 56000	SBF	H	** –6.16	Tim 31000	T 4IVH▼	344	583	Co	TX	104⅝	9½x3⅛ 4x5½	C
23	22I		185	185	20500	▲6180	9.00/20	9.00/20	Own GC310	6–3⅝x5	310	6.2	243	101–3000	7–2½x10.7	Y	Cla 205V	5	Tim 56000	SBF	H	** –6.16	Tim 31000	T 4IVH▼	344	583	Co	TX	124⅝	9½x3⅛ 4x5½	C
24	23T		130	130	23000	▲8180	10.00/20	10.00/20	Con B6371	6–4¼x4⅝	371	6.0	279	100–2600	7–2½x13½	Y	Cla 270VO	5	Tim 98415	dF	H	6.53–8.53	Tim 32000	Ws4IA	514	747	G	TX	69⅝	9½x3⅛ 4x5½	C
25	23B		145	145	23000	▲7380	10.00/20	10.00/20	Con B6371	6–4¼x4⅝	371	6.0	279	100–2600	7–2½x13½	Y	Cla 270VO	5	Tim 72000	2F	H	** –8.4	Tim 32000	T 4IVH▼	370	644	G	TX	84⅝	9½x3⅛ 4x5½	C
26	23L		185	185	23000	▲7510	10.00/20	10.00/20	Con B6371	6–4¼x4⅝	371	6.0	279	100–2600	7–2½x13½	Y	Cla 270VO	5	Tim 58000	SBF	H	** –7.8	Tim 32000	T 4IVH▼	370	644	G	TX	124⅝	9½x3⅛ 4x5½	C
27	25T		130	130	27400	▲8660	10.00/20	10.00/20	Con B6427	6–4½x4¾	427	5.9	324	127–2700	7–2½x13½	Y	Cla 270V–VO	5	Tim 98415	dF	H	6.53–8.53	Tim 35000	Ws4IA	514	744	G	TX	69⅝	9½x3⅛ 4x5½	C
28	25BL & 25BT		145	145	27400	▲9360	10.00/20	10.00/20	Con B6427	6–4½x4¾	427	5.9	324	127–2700	7–2½x13½	Y	Cla 270VO‡	15	T-S-200P	2F	H	** –7.84	Tim 35000	Ws4IA	660	952	G	TX	84⅝	9½x3⅛ 4x5½	C
29	25B		145	145	27400	▲8570	10.00/20	10.00/20	Con B6427	6–4½x4¾	427	5.9	324	127–2700	7–2½x13½	Y	Cla 270VO	5	T-S-200-P	2F	H	** –7.84	Tim 35000	Ws4IA	660	952	G	TX	84⅝	9½x3⅛ 4x5½	C
30	25L		185	185	27400	▲8700	10.00/20	10.00/20	Con B6427	6–4½x4¾	427	5.9	324	127–2700	7–2½x13½	Y	Cla 270V	5	T-S-200-P	2F	H	** –7.84	Tim 35000	Ws4IA	660	952	G	TX	124⅝	9½x3⅛ 4x5½	C
31	Sterling HD97		148	175	24000	9150	9.00/20	11.00/20	Wau 6MZA	6–4¼x4¾	404	5.6	290	130–3000	7–2⅝x12½	Y	Fu 5A43	5	Tim Q100DPH	FHy	R	5.29–7.80	Tim 35011H	T4IHV	466	822	A	TX	67	9x7x¼	A
32	HD105		148	175	24000	9550	10.00/20	11.00/22	Wau 6MZA	6–4¼x4¾	404	5.6	290	130–3000	7–2⅝x12½	Y	Fu 5A43	5	Tim R100DPH	FHy	R	5.29–7.40	Tim 35011H	T4IHV	524	926	A	TX	67	9x3¼x¼	A
33	HD115		148	175	32000	10650	10.00/20	11.00/24	Wau 6SRKR	6–4⅝x5½	517	5.5	368	125–2250	7–3x13⅛	Y	Fu 5A62	5	Tim S200P	2F	R	7.77–8.53	Tim 36000TW	Ws4IA	722	1054	A	TX	67	9x3¼x¼	A
34	HD145		148	175	36000	11250	11.00/20	12.00/24	Wau 6SRKR	6–4⅝x5½	517	5.5	368	125–2250	7–3x13⅛	Y	Fu 5A62	5	Tim 79721W	2F	R	7.69–11.36	Tim 36000TW	Ws4IA	614	922	A	TX	67	9¼x3⅝x⅝	A
35	(D) HD115H		158	185	32000	11950	10.00/20	10.00/24	Cum HB600	6–4⅛x6	672	17.	500	150–1800	7–4½x16½	Y	Fu 4B86	4	Tim S200P	2F	R	7.77–8.53	Tim 36000TW	Ws4IA	722	1054	A	TX	68	9x3¼x¼	A
36	(D) HD145H		158	185	36000	12550	11.00/20	12.00/24	Cum HB600	6–4⅛x6	672	17.	500	150–1800	7–4½x16½	Y	Fu 4B86	4	Tim 79721W	2F	R	7.69–11.36	Tim 36000TW	Ws4IA	614	922	A	TX	68	9¼x3⅝x⅝	A
37	HC97		148	175	24000	9200	9.00/20	11.00/20	Wau 6MZA	6–4¼x4¾	4045	6	290	130–3000	7–2⅝x12½	Y	Fu 5A43	5	Own 97H	C8	R	6.70–10.82	Tim 35011H	T4IHV	540	842	A	TX	67	9x7x¼	A
38	HC105		148	175	28000	9700	10.00/20	11.00/22	Wau 6MZA	6–4¼x4¾	4045	6	290	130–3000	7–2⅝x12½	Y	Fu 5A43‡	15	Own 137H	C8	R	6.70–10.82	Tim 35011H	TL4IHV	540	842	A	TX	67	9x3¼x¼	A
39	HC115		148	175	32000	10350	10.00/20	11.00/24	Wau 8RKR	6–4⅝x5½	5175	5.5	368	125–2250	7–3x13⅛	Y	Fu 5A62‡	15	Own 137W	C8	R	6.70–10.82	Tim 36000TW	Ws4IA	648	974	A	TX	67	9x3¼x¼	A
40	HC144		148	175	36000	11250	10.00/22	12.00/24	Wau 6SRKR	6–4⅝x5½	5175	5.5	368	125–2250	7–3x13⅛	Y	Fu 5A62‡	15	Own 148W	C8	R	6.70–10.82	Tim 36000TW	Ws4IA	708	1042	A	TX	67	9¼x3⅝x⅝	A
41	HC147		148	175	36000	11500	10.00/22	12.00/24	Wau 6SRKR	6–4⅝x5½	5175	5.5	368	125–2250	7–3x13⅛	Y	Fu 5A62‡	15	Own 147W	C8	R	6.70–10.82	Tim 36000TW	Ws4IA	708	1042	A	TX	67	9¼x3⅝x⅝	A
42	HC175		158	185	45000	14600	12.00/24†	14.00/24‡	Wau 145GK	6–5¼x6	779	6.2	585	186–2100	7–3½x17¾	Y	Fu 4B86●	12	Own 175W	C8	R	7.31–12.42	Tim 27454W	Ws4IA	786	1152	A	TX	68	9¼x3⅝x⅝	A
43	HC250		158	185	60000	18400	14.00/24‡	14.00/24‡	Wau 145GK	6–5¼x6	779	6.2	585	186–2100	7–3½x17¾	Y	Fu 4B86●	12	Own 251W	C8	R	7.31–12.42	Tim 27454W	Ws4IA	786	1157	A	TX	68	12x3½x⅝	AL
44	(D) HC115H		158	185	32000	12250	10.00/20	11.00/24	Cum HB600	6–4⅞x6	672	17.	500	150–1800	7–4½x16½	Y	Fu 4B86●	12	Own 137W	C8	R	6.70–10.82	Tim 36000TW	Ws4IA	648	974	A	TX	68	9x3¼x¼	A
45	(D) HC175H		158	185	45000	14930	12.00/24†	14.00/24‡	Cum HBD600	6–4⅞x6	672	17.	500	150–1800	7–4½x16½	Y	Fu 4B86●	12	Own 175W	C8	R	7.31–12.42	Tim 27454W	Ws4IA	786	1152	A	TX	68	9¼x3⅝x⅝	A
46	(D) HC250H		158	185	60000	18700	14.00/24‡	14.00/24‡	Cum HBD600	6–4⅞x6	672	17.	500	150–1800	7–4½x16½	Y	Fu 4B86●	12	Own 251W	C8	R	7.31–12.42	Tim 27454W	Ws4IA	785	1152	A	TX	68	12x3½x⅝	AL
47	Studebaker M5		113	113	4500	2120	6.50/16S	6.50/16S	Own 1M	6–3x4	170	6.5	134	80–4000	4–2⅞x5⅞	N	Own 664949	3	Own 663597	Hy	H	** –4.82	Own 664307	L4IH	157	276	Co	2I	45⅜	7½x2⅞x⅜	T
48	M15A-20		120	120	7800	2960	7.00/17S	7.50/17	Own 2M	6–3x4	170	6.5	134	80–4000	4–2⅞x5⅞	N	Own 673674	4	Own 664435	SF	H	5.66–6.60	Own 673625	LH4IH	216	342	a	TX	52⅜	7⅞x2⅜x⅜	T
49	M15A-28		128	128	10000	3060	7.50/17S	7.00/20	Own 2M	6–3x4	170	6.5	134	80–4000	4–2⅞x5⅞	N	Own 673674	4	Own 665174	SF	H	6.60–5.66	Own 673625	LH4IH	216	342	a	TX	60⅜	8¼x2⅝x⅜	T
50	M16		128	195	13500	3630	7.00/20D	8.25/20	Own 3M	6–3⅞x4⅜	226	6.5	176	94–3600	4–2⅝x5⅜	N	Own 674989	4	Own 665171	SF	H	5.66–6.66	Own 664452	LH4IH	280	442	Co	TX	60⅜	8½x2⅜x⅞	T
51	M16 (2–Sp)		128	195	15000	4090	7.00/20D	8.25/20	Own 3M	6–3⅞x4⅜	226	6.5	176	94–3600	4–2⅝x5⅜	Y	Own 674989	4	Own 674681	SF	H	Dual Rge.	Own 664452	LH4IH	280	442	Co	TX	60⅜	8½x2⅜x⅞	T
52	Truckstell (C) F18-5		140	194	18500	▲5265	7.50/20*	10.00/20	Ford	8–3⅞x3¾	239	6.4	180	100–3800	3–2½x4.71	N	Ford & BL	12	Cla R1300	SF	H	5.67–6.83	Ford	L4IHV	355	610	a	TX	65¾	7½x3x.47	CTf
53	(C) F19-5-0		108	166	19500	▲5265	7.50/20*	10.00/20	Ford	8–3⅞x3¾	239	6.7	180	100–3800	3–2½x4.71	N	Ford & BL	12	Cla R1300	SF	H	5.67–6.83	Ford	L4IHV	355	610	a	TX	65¾	7½x3x.47	CTf
54	(C) C18-5		144	197	18500	▲5395	7.50/20*	9.00/20	Chevrolet	6–3⅞x3⅜	235	6.6	192	93–3100	4–2¾x5⅞	N	Chev & BL	12	Cla R1300	SF	H	5.67–6.83	Chevrolet	L4IHV	355	610	a	TD	67	7½x3x.47	CTf
55	(C) C19-5-0		114	173	19500	▲5395	7.50/20*	9.00/20	Chevrolet	6–3⅞x3⅜	235	6.6	192	93–3100	4–2¾x5⅞	N	Chev & BL	12	Cla R1300	SF	H	5.67–6.83	Chevrolet	L4IHV	355	610	a	TD	67	7½x3x.47	CTf
56	Ward La Fr. D-1		149	220	25000	9500	10.00/20	11.00/20	Con B6427	6–4⅞x4⅞	427	6.1	325	127–....	7–2⅝x13½	Y	Fu 5A430	5	Tim 58415PA	B	R	** –6.14	Tim 35011TW	Ws4A	600	928	c	TM	68¼	9½x3x⅛	....
57	D-1B		149	220	25000	9500	10.00/20	11.00/20	Con 22R	6–4⅛x5½	501	5.4	384	148–....	7–2¾x14½	Y	Fu 5A620	5	Tim 58415PA	B	R	** –6.14	Tim 35011TW	Ws4A	600	928	c	TM	68¼	9½x3x⅛	....
58	D-1C		149	220	29000	9500	11.00/20	11.00/20	Con B6427	6–4⅞x4⅞	427	6.1	325	127–....	7–2⅝x13½	Y	Fu 5A430	5	Tim S-200P	S2	R	** –7.84	Tim 35011TW	Ws4A	673	1031	c	TM	68¼	9½x3x⅛	....
59	D-2		149	220	29000	12000	11.00/20	11.00/24	Con R6513	6–4⅝x5½	513	5.9	400	170–....	7–3¼x14½	Y	Fu 5A620	5	Tim S-200P	S2	R	** –7.84	Tim 35011TW	Ws4A	673	1031	c	TM	68¼	10x3x⅞	....
60	D-3		149	220	34000	12000	11.00/22	12.00/24	Con R6572	6–4¾x5½	572	5.9	440	189–....	7–3¼x14½	Y	Fu 5A650	5	Tim U200P	S2	R	** –7.84	Tim 26458W	Ws4A	750	1159	c	TM	68¼	10x3x⅞	....
61	(D) D-5		149	149	35000	12500	11.00/22	12.00/24	Cum HB600	6–4⅞x6	672	17.	500	150–....	7–4½x16¾	Y	Fu 5A650	5	Tim U200P	S2	R	** –6.42	Tim 26458W	Ws4A	750	1159	c	TM	68¼	10x3x⅞	....
	Four-Wheel-Drive																														
62	Corbitt 22FG		159	Opt	22000	.....	9.00/20	10.00/20	Con B6371	6–4½x4½	371	5.7	280	100–2600	7–2½x13½	Y	Fu 5A43	5	Tim R2090H	2F	H	** –8.43	Tim F2090H	L4IHV	....	868	a	TD	74	9x3x¼	T
63	Dodge WDX		126	126	8700	.....	7.50/16S	9.00/16S	Own T-137	6–3¼x4½	230	6.7	185	94–3200	4–2½x4.8	Y	NP 38580	4	Own T137	HyF	H	4.89–5.83	Own T137	O4IH	210	311	Co	TX	52⅜	6¼x2⅞x⅞	DL
64	FWD HA		132	156	17000	▲7470	8.25/20D	10.00/20	Wau BZ	6–4x4¼	320	5.9	223	95–2800	7–2⅝x10¼	Y	Own H	5	Own H	SF	H	6.6 –9.06	Own H	L4IHV	391	807	a	T4	79½	9x3x¼	T
65	HR		132	154	20000	▲8000	9.00/20	10.00/20	Wau MZA	6–4¼x4¾	404	5.6	291	129–2800	7–2⅝x12⅝	Y	Own H	5	Own H	SF	H	6.6 –9.06	Own H	L4IHV	391	807	a	T4	79½	9x3x¼	T
66	HG		154	154	20000	▲8050	9.00/20	10.00/20	Wau MZA	6–4¼x4¾	404	5.6	291	129–2800	7–2⅝x12⅝	Y	Own H	5	Own H	SF	H	6.6 –9.06	Own H	L4IHV	391	807	a	T4	89¾	7⅞x3x⅜	C
67	SU		150	182	25000	▲10420	11.00/20D	12.00/20	Wau SRKR	6–4⅝x5½	517	5.5	365	126–2400	7–3x13⅞	Y	Own U	5	Own U	BF	H	6.7 –9.8	Own U	L4IHV	512	867	a	T4	90	7⅞x3x⅜	C
68	SU‡		150	182	28000	10570	11.00/20D	12.00/20	Wau SRKR	6–4⅝x5½	517	5.5	365	126–2400	7–3x13⅞	Y	Own U	5	Own U	BF	H	6.7 –9.8	Own U	L4IHV	512	867	a	T4	90	8⅛x3x⅜	C
69	M7		150	180	38600	▲15400	12.00/20D	12.00/20	Wau 145GK	6–5¼x6	779	6.2	585	186–2000	7–3½x17¾	Y	Own M	10	Tim 1758	2F	H	** –7.33	Wis F409	Ws4IA	578	976	a	T4	90	10⅛x3x⅜	C
70	(D) M7D		150	180	38600	▲15700	12.00/20D	12.00/20	Cum HB600	6–4⅞x6	672	17.	500	150–1800	7–4½x16¾	Y	Own M	10	Tim 1758	2F	H	** –7.33	Wis F409	Ws4IA	578	976	a	T4	90	10⅛x3x⅜	C
71	(D) M10D		150	180	44000	16200	11.00/24D	12.00/24	Cum NHB600	6–5½x6	743	17.	575	200–2000	7–4½x16¾	Y	Own M	10	Tim 79721	2F	H	** –7.5	Wis F409	Ws4IA	596	1030	a	T4	90	10⅛x3x⅜	C

▲ Includes Cab.
† Rear only; Front 11.00/24.
‡ Rear only; Front 12.00/24.
‡ Front only; Rear 8.25/20.
‖ Auxiliary transmission, Own OJ.
● Auxiliary transmission Own FJ.
* 2-Speed Axle Available.
■ 6031 Auxiliary Transmission.
▼—Lockheed Type Front and Timken Dual Primary Rear Brakes.

CURRENT TRUCK SPECIFICATIONS—*continued*

Line Number	Make and Model	Chassis List Price	Wheelbase Minimum Standard	Wheelbase Maximum Standard	Gross Vehicle Weight for Normal Service	Chassis Weight (See definition)	Tire Sizes D-dual rear S-single rear: Standard Front and Rear	Tire Sizes: Maximum Authorized Tire Size (Duals unless noted)	Engine Details: Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Main Bearings: Number, Diameter and Length	Governor Standard	Transmission: Make and Model	Transmission: Forward Sp'ds	Rear Axle: Make and Model	Rear Axle: Gear and Type	Rear Axle: Drive & Torque	Rear Axle: Gear Ratio Range in High	Front Axle: Make and Model	Brakes Service: Make Location Type Operat'n	Brakes Service: Lining Area	Brakes Service: Drum Area	Brakes Service: Drum Material	Brakes: Hand Location Type	C-A Dimension (Min. Std. W. B.)	Frame: Side Rail Dimensions	Frame: Type
1	Marmon-Herr. MH440-4		158	170	20700	▲8700	9.00/20D	10.00/20	Her WXLC3	6-4¼x4¾	404	5.4	293	118-2800	7-2⅝x13¼	Y	Fu 5A430	5	Tim R2090W	2B	H	** -8.43	Tim F2090W	W....A	584	887	c	F	72	9½x3x⅜	T
2	Herr... MH555-4		161	173	24000	▲10200	10.00/20D	11.00/20	Her RXC	6-4⅝x5¼	529	6.3	390	131-2200	7-3x13¼	Y	Fu 5A620	5	Tim R3100W	2B	H	** -8.15	Tim F3100W	W....A	692	1039	c	F	72	10x3x⅜	T
3	(C)..... CM5-4		134	134	13500	▲4847	7.50/20D	7.50/20	Ford	8-3⅛x3¾	239	6.4	176	100-3500	3-2½x4.71	N	Ford	4	Ford	S	H	** -6.67	Own M5	F....H	302	563	a	F	60½	7x2¾x⅜	T
4	(C)..... CM6-4		158	158	13500	▲4973	7.50/20D	7.50/20	Ford	8-3⅛x3¾	239	6.4	176	100-3500	3-2½x4.71	N	Ford	4	Ford	S	H	** -6.67	Own M5	F....H	303	563	a	F	84⅛	7x2¾x⅜	T
5	(C)..... LD6P-4		114	....			15"	15"	Ford	8-3⅛x3¾	239	6.4	176	100-3500	3-2½x4.71	N	Ford	4	Ford	S	T	** -4.11	Own O	F....H	162	....	A	F			X
6	(C)..... LD6-4		114	....	4700	▲2719	15"	15"	Ford	8-3⅛x3¾	239	6.4	176	100-3500	3-2½x4.71	N	Ford	4	Ford	S	H	** -4.11	Own O	F....H	162	....	A	F	40⅛	5½x2¼x⅛	T
7	(C)..... OT5-4		122	....	6800	▲3972	7.50/17	7.50/17	Ford	8-3⅛x3¾	239	6.4	176	100-3500	3-2½x4.71	N	Ford	4	Ford	S	H	** -4.86	Own I	F....H	186	....	A	F	48	6x2¼x⅛	T
8	Oshkosh....W1700		150	205	28000	11000	11.00/20D	12.00/20S	Her RXC	6-4½x5¼	529	5.4	380	128-2200	7-3x13¼	Y	Fu 5A620	5	Own W1700	2F	H	** -6.4	Own 1700	L4IH	630	975	G	TX	82	8¼x3x⅜	TF
9	.....W2200		160	181	40000	16500	13.00/20D	14.00/20S	Bu MO779	6-5¼x6	779	....	575	188-2100	7-3¼x17	Y	Fu 4A86	12	Own W2200	2F	H	** -6.14	Own 2200	LT4IA	645	975	G	TX	90	10¼x3½x⅜	TF
10	.....W2201		160	181	40000	16500	13.00/20D	14.00/20S	Bu MO893	6-5¾x6	893	....	625	200-1800	7-3¾x17	Y	Fu 4A86	12	Own W2200	2F	H	** -6.14	Own 2200	LT4IA	645	975	G	TX	90	10¼x3½x⅜	TF
11	Peterbilt(D)270DD	10332	165	Opt	27000	12500	10.00/20D	11.00/22	Cum HB600	6-4⅞x6	672	17.	500	150-1800	7-4½x16½	Y	Spi 7741	12	U-200P	2F	R	** -6.42	Tim 36000W	Ws4IA	800	1250	a	FD	80½	10⅜x3¼x⅜	TL
12	Walter(c.f.)....FN		126	150	20000	7500	9.00/20D	10.00/20S	Wau MZR	6-4¼x4¾	404	5.6	290	100-2500	7-2⅝x12½	Y	Own FN	6	Own FNB	2	H	6.0-8.0	Own FN	O4IA	470	670	G	FI	84	7x2¾x¼	C
13	(c.f.)..FZM		126	150	24000	8500	10.00/20D	12.00/20S	Wau MZR	6-4¼x4¾	404	5.6	290	100-2500	7-2⅝x12½	Y	Own FN	6	Own FMB	2	H	6.0-8.0	Own FJ	O4IA	470	670	G	FI	84	12x3½x½	B
14	(c.f.)..FKM		126	150	24000	9000	10.00/20D	12.00/20S	Wau SRKR	6-4⅝x5½	517	5.5	365	125-2200	7-3x13⅞	Y	Own FJD	6	Own FMB	2	H	6.0-8.0	Own FJ	O4IA	470	670	G	FI	84	12x3½x½	B
15	(c.f.)..FCK		126	138	30000	10500	10.00/24D	11.00/24S	Wau SRKR	6-4⅝x5½	517	5.5	365	125-2200	7-3x13⅞	Y	Own FC	6	Own FCB	2	H	7.5-9.0	Own FC	O4IA	585	890	D	FI	84	13x3¾x½	B
16	(c.f.)....FC		138	162	32000	11000	11.00/24D	12.00/24S	Wau SRKR	6-4⅝x5½	517	5.5	365	125-2200	7-3x13⅞	Y	Own FC	6	Own FCB	2	H	7.5-9.0	Own FCR	O4IA	585	890	D	FI	96	14x3¾x½	B
17	(c.f.)..FGB		126	162	32000	12000	11.00/24D	12.00/24S	Wau 145GK	6-5¼x6	779	5.7	580	175-2000	7-3½x17¼	Y	Own FA	6	Own FCB	2	H	7.5-9.0	Own FCR	O4IA	585	890	D	FI	84	14x3¾x½	B
18	(c.f.)..FGR		126	162	42000	13000	12.00/24D	12.00/24	Wau 145GK	6-5¼x6	779	5.7	580	175-2000	7-3½x17¼	Y	Own FA	6	Own FCR	2	H	7.5-9.0	Own FCR	O4IA	585	890	D	FI	89	14x3¾x½	B
	Willys																													
19	Univ. Jp...CJ-2A	*1146	80	80	2937	‡1646	6.00/16	7.00/15	Own CJ-2A	4-3½x4⅜	134	6.4	105	60-4000	3-2.33x5.48	N	WG T90A	3	Spi 41-2	Hy	H	** -5.38	Spi 25	B4H	118	520	a	F	80	4x1¾x⅛	P
	Six-Wheelers Wheels Driven ▼																													
	Diamond T																													
20	....901SD3010PA		186	236	40000	13800	10.00/22D	11.00/20	Con R-6572	6-4¾x5⅝	572	6.0	440	190-2600	7-3¼x14½	Y	Spi 6252,703	15	T SD3010PA	2F	R	** -7.50	T 36021TW	Ws6IA	1230	....	A	TD	104½	10½x3¼x⅛	T
21	....901SW3012PA		206	224	40000	13900	10.00/22D	10.00/22	Con R-6572	6-4¾x5⅝	572	6.0	440	190-2600	7-3¼x14½	Y	Spi 6252,703	15	T SW3012PA	2F	R	** -6.16	T 36021TW	Ws6IA	1230	....	A	TD	124	10½x3¼x⅛	T
22	(D)9108W3012PA		206	206	40000	15400	10.00/22D	10.00/22	Cum HB-600	6-4½x6	672	17.	500	150-1800	7-4½x16¾	Y	Spi 7851, 703	15	T SW3012PA	2F	R	** -6.16	Tim 36021TW	Ws6IA	1082	....	A	TD	124	10½x3¼x⅛	T
23	.(D)9108D462W		206	206	50000	16700	11.00/22D	11.00/22	Cum HB600	6-4½x6	672	17.	500	150-1800	7-4½x16¾	Y	Spi 7851, 703	15	T SD462W	2F	R	** -8.15	Tim 36021TW	Ws6IA	1012	....	A	TD	124	10½x3¼x⅛	T
24	.(D)9108W456W		206	206	50000	16500	11.00/22D	11.00/22	Cum HB600	6-4½x6	672	17.	500	150-1800	7-4½x16¾	Y	Spi 7851-703	15	Tim SW456W	2F	R	6.8 -7.6	T36021TW	Ws6IA	1230	....	A	TD	124	10½x3¼x⅛	T
25	F.W.D.....M6x6		243	276	58000	▲21400	11.00/24D	11.00/24	Her HXE	6-5¾x6	935	5.5	650	198-2000	7-3½x16⅛	Y	Fu	8	Wis SD462	2F	L	** -8.15	Wis F409	Ws6IA	1080	1680	a	T6	183	10x3x⅜	P
26	(D)....M6X6D		180	276	58000	▲21800	11.00/24D	11.00/24	Cum HB600	6-4½x6	672	17.	500	150-1800	7-4½x16¼	Y	Fu	8	Wis SD462	2F	L	** -8.15	Wis F409	Ws6IA	1080	1680	a	T6	216	10x3x⅜	P
	International (2)																													
27	(b)...KB-6F.4R	3200	151	194	22000	6915	7.00/20D	8.25/20	Own BLD250	6-3⅛x4½	251	6.3	200	100-3200	4-2¾x5⅜	N	Own F51	5	Own RF1450	SF	H	6.16-6.66	Own F470	LH4IHV	495	869	c	PX	77	8⅛x⅛x⅛	T
28	(b)...KB-8F.4R	4850	161	215	27000	8575	8.25/20D	9.00/20	Own RED361	6-4¼x4½	361	6.3	282	126-3000	7-3¼x10⅛	Y	Own F52	5	Own RF1560	SF	H	6.50-7.	16Own F550	LH6IHV	644	1105	c	PX	84	9½x3⅛x⅛	T
29	(b)...KB-11F.4R	6750	161	215	37000	10830	9.00/20D	10.00/20	Own RED450	6-4⅝x5	451	6.3	360	148-2600	7-3¾x13⅛	Y	Own F54	5	Own RF1670	SF	H	** -7.	16Own F760	TW6IA	738	1179	G	PX	84	10½x⅜x⅛	T
30	.....W-4064H	12900	203	239	40000	15360	10.00/22	11.00/22	O-Con. S6749	6-5¾x5½	749	6.0	554	254-2600	7-3¾x15¾	Y	Spi 7741	4	Tim SW3012	WF	H	** -6.16	Own S6303	BW6IA	1168	....	G	FX	108	10x3½x⅛	C
31	Ken- (D)523.4R		193	241	41000	14600	10.00/20	11.00/22	Cum HB6	6-4½x6	672	17.	500	200-2100	7-4½x16½	Y	BL 7841	4	Ti SW3012PA	WF	R	** -6.16	Tim 36000	Ws4rIA	924	1248	a	TD	102	9½x3¼x⅛	C
32	worth(D)524.4R		193	241	54000	15100	10.00/20	11.00/22	Cum HB6	6-4½x6	672	17.	500	200-2100	7-4½x16½	Y	BL 7841	4	Tim SW452	WF	R	6.0 -7.6	Tim 36000	Ws4rIA	819	1192	a	TD	102	9½x3¼x⅛	C
33	.....528.4R		186	234	40000	12500	10.00/20	10.00/22	Bud L0525	6-4½x5½	525	5.5	385	135-2200	7-3x11½	Y	Fu 5A620	5	Ti SW3012PA	WF	R	** -6.16	Tim 35100	Ws4rIA	924	1248	a	TD	102	9½x3¼x⅛	C
34	.....532.4R		186	234	35000	12500	10.00/20	10.00/22	Wau 6MZR	6-4¼x4¾	404	5.9	300	112-2500	7-2⅝x12½	Y	Fu 5A430	5	Ti SW3012PA	WF	R	** -6.16	Tim 35100	Ws4rIA	924	1248	a	TD	102	9½x3¼x⅛	C
35	.....(D)548.4R		193	241	54000	17000	11.00/22	12.00/24	Cum HB6	6-4⅞x6	672	17.	500	200-2100	7-4½x16½	Y	BL 7841	4	Tim SD462	DR	R	** -8.15	Tim 36000	Ws4rIA	819	1192	a	TD	109	9½x3¼x⅛	dbC
36	.....(D)552.4R		255	255	54000	20700	13.00/24	13.00/24	Cum HB6	6-4½x6	672	17.	500	150-1800	7-4½x16½	Y	BL 7841	4	Tim SD462W	WF	R	** -8.15	Tim F3200W	Ws4rIA	1109	1192	a	TD	168	9½x3¼x⅛	dbC
	Marmon-Herr.																													
37	(C)..... CM5-6	2790	156	....	22500	▲6673	7.50/20D	7.50/20	Ford	8-3⅛x3¾	239	6.4	176	100-3500	3-2½x4.71	N	Ford	4	Timken	S	H	** -6.67	Own M5	M	503	....	a	F	82⅛	7½x3x¼	C
38	(C)..... CM6-6	2822	180	....	22500	▲6710	7.50/20D	7.50/20	Ford	8-3⅛x3¾	239	6.4	176	100-3500	3-2½x4.71	N	Ford	4	Timken	S	H	** -6.67	Own M5	M	503	....	a	F	106¼	7½x3x¼	C
39	.....MH-555-6		260	260	37000	▲14900	11.00/20	11.00/20	Her RXC	6-4⅝x5½	529	6.3	390	131-2200	7-3x13¼	Y	Fu 5A620	♦5	Tim SD3000	2B	H	** -8.15	Tim F3100W	Ws..A	1092	1608	..	F	93	10x3x⅜	T
40	.....MH440-6		182	....	34000	▲10600	9.00/20	10.00/20	Her WXLC3	6-4¼x4¾	404	5.4	239	118-2800	7-2⅝x13¼	Y	Fu 5A430	5	Tim SFD154	2B	H	** -8.43	Tim F2090W	Ws..A	876	....	C	F	96	9½x3x¼	T
41	Oshkosh.....W703		Opt	Opt	45000	16950	11.00/20D	12.00/20	Her RXLD	6-4¾x5¼	558	5.4	405	141-2200	7-3½x13¼	Y	Fu 5A650	12	Tim SD454W	2F	H	** -6.31	Own-Tim	L6IH	1080	1625	G	TX	Opt	10½-3½-⅜	B
42	.....W1600BD		245	Opt	60000	22770	11.00/24D	12.00/24	Bu 6DC844	6-5¼x6½	844	....	600	180-1800	7-3¾x17	Y	Fu 4BI86	12	Tim SD462	2F	H	** -6.14	Own-Tim	LT6IA	1080	1625	G	TX	160	12¾-3½-⅜	B
43	....§W1600BDH		267	Opt	60000	24300	▲11.00/24D	12.00/24	Bu 6DC844	6-5¼x6½	844	....	600	180-1800	7-3¾x17	Y	Fu 4BI86	12	Tim SD462	2F	H	** -9.82	Own-Tim	LT6IA	1080	1625	G	TX	174	12¾-3½-⅜	B
44	....§W1602BDH		272	Opt	95000	29300	14.00/24D	14.00/24	Bu 6DC844	6-5¼x6½	844	....	600	180-1800	7-3¾x17	Y	Fu 4BI86	12	Tim SD472	2F	H	** -13.9	Own-Tim	LT6IA	....	2217	G	TX	177	12¾-3½-⅜	B
45	.....W1600BG		245	Opt	60000	22770	11.00/24D	12.00/24	Bu MO893	6-5¾x6	893	....	625	200-1800	7-3¾x17	Y	Fu 4BI86	12	Tim SD462	2F	H	** -9.82	Own-Tim	LT6IA	1080	1625	G	TX	160	12¾-3½-⅜	B
46	(D)....W1600CD		259	Opt	60000	23400	▲11.00/24D	12.00/24	Cum 6HBI	6-4¼x6	672	....	500	150-1800	7-4½x16	Y	Fu 4BI86	12	Tim SD462	2F	H	** -6.14	Own-Tim	LT6IA	1080	1625	G	TX	174	12¾-3½-⅜	B
47	(D)..W1600CDS		259	Opt	60000	23700	▲11.00/24D	12.00/24	Cum 6HBIS	6-4¼x6	672	....	635	200-1800	7-4½x16	Y	Fu 4BI86	12	Tim SD462	2F	H	** -9.82	Own-Tim	LT6IA	1080	1625	G	TX	174	12¾-3½-⅜	B
48	(D)..§W1600CDH		265	Opt	60000	24000	▲11.00/24D	12.00/24	Cum 6HBI	6-4¼x6	672	....	500	150-1800	7-4½x16	Y	Fu 4BI86	12	Tim SD462	2F	H	** -9.82	Own-Tim	LT6IA	1080	1625	G	TX	172	12¾-3½-⅜	B
49	(D)..§W1600CDSH		267	Opt	60000	24300	▲11.00/24D	12.00/24	Cum 6HBIS	6-4½x6	672	....	635	200-1800	7-4½x16	Y	Fu 4BI86	12	Tim SD462	2F	H	** -6.14	Own-Tim	LT6IA	1080	1625	G	TX	174	12¾-3½-⅜	B
50	Peterbilt(D)344DT	13564	189	Opt	43000	16250	10.00/20D	11.00/22	Cum HB600	6-4⅞x6	672	17.	500	150-1800	7-4½x16½	Y	Spi 7741	12	TimSW3012W	WF	A	6.00- 8.5	T 36000W	Ws6IA	1212	1734	a	FD	106½	10¼x3¼x⅛	TL
51	(D).....345DT	14119	187	Opt	54000	17300	10.00/20D	11.00/22	Cum HB600	6-4⅞x6	672	17.	500	150-1800	7-4½x16½	Y	Spi 7741	12	Tim SW456W	WF	A	6.00-10.2	T 36000W	Ws6IA	1450	1626	a	FD	106½	10¼x3¼x⅛	TL
52	(D).....354DT	14360	187	Opt	56000	17450	10.00/20D	11.00/22	Cum HB600	6-4⅞x6	672	17.	500	150-1800	7-4½x16½	Y	Spi 7741	12	Tim SW456W	WF	A	6.00-10.2	T 27454W	Ws6IA	1450	1626	a	FD	106½	10¼x3¼x⅛	TL
53	(D).....355DT	14760	187	Opt	56000	17900	10.00/20D	11.00/22	Cum HB600	6-4⅞x6	672	17.	500	150-1800	7-4½x16½	Y	Spi 7741	12	Tim SD462W	WF	A	** -8.15	T 27454W	Ws6IA	1000	1626	a	FD	106½	10¼x3¼x⅛	TL
54	Reo.....25TL		169	169	47000	▲12950	10.00/20	10.00/20	Con B6427	6-4⅝x4¼	427	5.9	324	127-2700	7-2½x13½	Y	Cla 270V&■	15	T-SD-3000	2F	T	7.5	Tim 35000	Ws6IA	1020	1472	G	TD	108½	9¼x3⅛x⅛	CP
55	Sterling...HBS8130		164	183	32000	11000	8.25/20	10.00/20	Wau 6MZA	6-4¼x4¾	404	5.6	290	130-3000	7-2⅝x12½	Y	Fu 5A43	5	T-SBD1555DPH	SF	L	6.80-13.14	T-35011H	T6Hy	664	1134	A	TX	82	9x3¼x⅛	A
56	.....HDS8140		164	183	36000	11800	9.00/20	10.00/20	Wau 6MZA	6-4¼x4¾	404	5.6	290	130-3000	7-2⅝x12½	Y	Fu 5A43	5	T-SD3010PA	2F	L	6.84-10.22	T-35011TW	Ws6IA	1074	1554	A	TX	83	9x3¼x⅛	A
57	.....HWS160		164	183	42000	12800	10.00/20	11.00/20	Wau 6SRKR	6-4⅝x5½	517	5.5	368	125-2250	7-3x13⅞	Y	Fu 5A62	5	T-SW3010PA	WF	L	5.40-8.50	T-36000TW	Ws6IA	1082	1574	A	TX	83	9x3¼x⅛	A
58	.....HWS235		182	193	52000	15700	11.00/20	11.00/24	Wau 145GK	6-5¼x6	779	6.2	585	186-2100	7-3½x17¼	Y	Fu 4B86	4	T-SW456PA	WF	L	5.67-8.20	T-27454W	Ws6IA	1308	1892	A	TX	92	9¼x3⅝x⅛	A
59	.....HWS160H		182	193	42000	14250	10.00/20	11.00/20	Cum HB600	6-4¼x6	672	17.	500	150-1800	7-4½x16½	Y	Fu 4B86	4	T-SW3012PA	WF	L	4.71-6.17	T-36000TW	Ws6IA	1082	1574	A	TX	92	9x3¼x⅛	A
60	.....HWS235H		182	193	52000	16000	11.00/20	11.00/24	Cum HB600	6-4¼x6	672	17.	500	150-1800	7-4½x16½	Y	Fu 4B86	4	T-SW56PA	WF	L	5.66-8.20	T-27454W	Ws6IA	1308	1892	A	TX	92	9¼x3⅝x⅛	A
61	.....HCS8195		170	189	48000	15300	10.00/20	11.00/22	Wau 140GK	6-4½x5½	525	6.0	426	142-2200	7-3¼x13¾	Y	Fu5A62-3A92	15	Own 195W	CD	R	6.04-7.31	T-36000TW	Ws6IA	1082	1622	A	TX	83	9¼x3⅜x½	A

▲ Includes Cab. ■ 6031 Auxiliary Transmission ♦ Auxiliary transmission, Spicer 8031. ‡ With power take-off ♣—Chassis Weights on Duals Front, Center and Rear. • Complete vehicle price at Toledo without Federal Tax §—Hydraulic Coupling.

CURRENT TRUCK SPECIFICATIONS—*concluded*

▲ Includes Cab. ■ 6031 Auxiliary Transmission ♦ Auxiliary transmission, Spicer 8031. ‡ With power take-off —Chassis Weights on Duals Front, Center and Rear. * Complete vehicle price at Toledo without Federal Tax §—Hydraulic Coupling.

CURRENT TRUCK SPECIFICATIONS—*concluded*

Line Number	MAKE AND MODEL	Chassis List Price	WHEEL-BASE Minimum Standard	WHEEL-BASE Maximum Standard	Gross Vehicle Weight for Normal Service	Chassis Weight (See definition)	TIRE SIZES D-dual rear S-single rear: Standard Front and Rear	TIRE SIZES: Maximum Authorized Tire Size (Duals unless noted)	ENGINE DETAILS: Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Main Bearings: Number, Diameter and Length	Governor Standard	TRANSMISSION: Make and Model	Forward Sp'ds	REAR AXLE: Make and Model	Gear and Type	Drive X Torque	Gear Ratio Range in High	FRONT AXLE: Make and Model	BRAKES SERVICE: Make Location Type Operat'n	Lining Area	Drum Area	Drum Material	Hand Location Type	C-A Dimensions (Min. Std. W. B.)	FRAME: Side Rail Dimensions	Type
	Sterling Cont'd.																														
1	HCS265		182	193	60000	17750	11.00/20	12.00/24	Wau 145GK	6–5¼x6	779	6.2	585	186–2100	7–3 1/16x17 3/4	Y	Fu 4B86♦	12	Own 265W	CD	R	9.21–13.16	T-27454W	Ws6IA	1060	1732	A	TX	92	9¼x3 5/16x3 1/16	A
2	HCS297		182	193	70000	20750	12.00/24†	13.00/24‡	Wau 145GK	6–5¼x6	779	6.2	585	186–2100	7–3 1/16x17 3/4	Y	Fu 4B86♦	12	Own 330W	CD	R	9.21–13.16	T-27454W	Ws6IA	1280	1872	A	TX	92	9¼x3 5/16x3 1/16	AL
3	HCS330		182	193	80000	23150	12.00/24	14.00/24‡	Wau 145GK	6–5¼x6	779	6.2	585	186–2100	7–3 1/16x17 3/4	Y	Fu 4B86♦	12	Own 330W	CD	R	9.21–13.16	T-27454W	Ws6IA	1280	1872	A	TX	92	12x3 1/16x3 1/16	AL
4	HCS195H		182	193	48000	16000	10.00/20	11.00/22	Cum HB600	6–4 1/16x6	672	17.500	150–1800	7–4 1/16x16 1/2		Y	Fu4B86-3A92	12	Own 195W	CD	R	6.04–7.31	T-36000TW	Ws6IA	1082	1622	A	TX	92	9¼x3 5/16x3 1/16	A
5	HCS265H		182	193	60000	18100	11.00/20	12.00/24	Cum HBD600	6–4 1/16x6	672	17.500	150–1800	7–4 1/16x16 1/2		Y	Fu 4B86♦	12	Own 265W	CD	R	9.21–13.16	T-27454W	Ws6IA	1060	1732	A	TX	92	9¼x3 5/16x3 1/16	A
6	HCS297H		182	193	70000	21050	12.00/24†	13.00/24‡	Cum HBD600	6–4 1/16x6	672	17.500	150–1800	7–4 1/16x16 1/2		Y	Fu 4B86♦	12	Own 330W	CD	R	9.21–13.16	T-27454W	Ws6IA	1280	1872	A	TX	92	9¼x3 5/16x3 1/16	AL
7	HCS330H		182	193	80000	23450	12.00/24	14.00/24‡	Cum HBD600	6–4 1/16x6	672	17.500	150–1800	7–4 1/16x16 1/2		Y	Fu 4B86♦	12	Own 330W	CD	R	9.21–13.16	T-27454W	Ws6IA	1280	1872	A	TX	92	12x3 1/16x3 1/16	AL
	Truckstell																														
8	(C)...F2X26.2F		156	237	26000	▲5900	7.50/20	8.25/20	Ford	8–3 1/16x3 1/4	239	6.4	180	100–3800	3–2 1/16x4.71	N	Ford	4	Ford	SF	..	** –6.67	Ford	F6IHV	502	836	c	TX	82½	7 1/16x3x.47	CTf
9	(C)...F2X27-0.2F		156	237	27000	▲6450	7.50/20	8.25/20	Ford	8–3 1/16x3 1/4	239	6.4	180	100–3800	3–2 1/16x4.71	N	Ford	8	Eat 1350	SFd	..	5.83–8.11	Ford	F6IHV	502	836	c	TX	82½	7 1/16x3x.47	CTf
10	(C)...F2X34.2F		156	237	34000	▲8235	7.50/20	10.00/20	Ford	8–3 1/16x3 1/4	239	6.4	180	100–3800	3–2 1/16x4.71	N	F and BL	12	Cla R1300	SF	..	5.67–6.83	Ford	F6IHV	605	1043	a	TX	82½	7 1/16x3x.47	CTf
11	(C)....F2X34-0		135	224	34000	▲8235	7.50/20	10.00/20	Ford	8–3 1/16x3 1/4	239	6.4	180	100–3800	3–2 1/16x4.71	N	Ford and BL	12	Cla R1300	SF	..	5.67–6.83	Ford	F6IHV	605	1043	a	TX	82½	7 1/16x3x.47	CTf
12	(C)...F4X26.4R		144	210	26000	▲6300	7.50/20	8.25/20	Ford	8–3 1/16x3 1/4	239	6.4	180	100–3800	3–2 1/16x4.71	N	Ford	8	Ford	SF	..	6.07–10.5	Ford	F6IHV	502	836	c	TX	63 1/16	7 1/16x3x.47	CTf
13	(C)....F4X27-0		117	180	27000	▲6300	7.50/20	8.25/20	Ford	8–3 1/16x3 1/4	239	6.4	180	100–3800	3–2 1/16x4.71	N	Ford	8	Ford	SF	..	6.07–10.5	Ford	F6IHV	502	836	c	TX	63 1/16	7 1/16x3x.47	CTf
14	(C)....F4X29.4R		144	210	29000	▲7000	7.50/20	8.25/20	Ford	8–3 1/16x3 1/4	239	6.4	180	100–3800	3–2 1/16x4.71	N	Ford	16	Eat 1350	SFd	..	7.47–12.9	Ford	F6IHV	502	836	c	TX	63 1/16	7 1/16x3x.47	CTf
15	(C)....F4X30-0		117	180	30000	▲7200	7.50/20	8.25/20	Ford	8–3 1/16x3 1/4	239	6.4	180	100–3800	3–2 1/16x4.71	N	Ford	16	Eat 1350	SFd	..	7.47–12.9	Ford	F6IHV	502	836	c	TX	63 1/16	7 1/16x3x.47	CTf
16	(C)....C2X26.2F		157	234	26000	▲5800	7.50/20	8.25/20	Chevrolet	6–3 1/16x3 1/16	235	6.6	192	93–3100	4–2 3/16x5 1/16	N	Chevrolet	4	Chevrolet	SF	..	** –6.17	Chevrolet	C6IHV	546	780	a	2I	82¼	7 1/16x3x.47	CTf
17	(C)....C2X28.2F		157	234	28000	▲6500	7.50/20	8.25/20	Chevrolet	6–3 1/16x3 1/16	235	6.6	192	93–3100	4–2 3/16x5 1/16	N	Chevrolet	8	Tim	SFd	..	5.64–8.22	Chevrolet	C6IHV	546	780	a	2I	82¼	7 1/16x3x.47	CTf
18	(C)....C2X34-0		141	224	34000	▲8695	7.50/20	10 00/20	Chevrolet	6–3 1/16x3 1/16	235	6.6	192	93–3100	3–2 3/16x5 1/16	N	C and BL	8	Cla R1300	SFd	..	5.67–6.83	Chevrolet	C6IHV	546	780	a	2I	82¼	7 1/16x3x.47	CTf
19	(C)...C2X34.2F		157	234	34000	▲8285	7.50/20	10.00/20	Chevrolet	6–3 1/16x3 1/16	235	6.6	192	93–3100	4–2 3/16x5 1/16	N	C and BL	12	Cla R1300	SF	..	5.67–6.83	Chevrolet	C6IHV	615	1043	a	TD	82¼	7 1/16x3x.47	CTf
20	(C)...C4X26.4R		145	212	26000	▲6120	7.50/20	7.50/20	Chevrolet	6–3 1/16x3 1/16	235	6.6	192	93–3100	4–2 3/16x5 1/16	N	Chevrolet	8	Chevrolet	SF	..	6.41–11.1	Chevrolet	C6IHV	546	780	a	2I	63¾	7 1/16x3x.47	CTf
21	(C)....C4X27-0		117	184	27000	▲6215	7.50/20	7.50/20	Chevrolet	6–3 1/16x3 1/16	235	6.6	192	93–3100	3–2 3/16x5 1/16	N	Chevrolet	8	Chevrolet	SF	..	6.41–11.1	Chevrolet	C6IHV	546	780	a	2I	63¾	7 1/16x3x.47	CTf
22	(C)...C4X29.4R		145	212	29000	▲6880	7.50/20	8.25/20	Chevrolet	6–3 1/16x3 1/16	235	6.6	192	93–3100	4–2 3/16x5 1/16	N	Chevrolet	16	Eat 1350	SFd	..	7.47–12.9	Chevrolet	C6IHV	512	836	a	TD	63	7 1/16x3x.47	CTf
23	C4X30-0		117	184	30000	▲7290	7.50/20	8.25/20	Chevrolet	6–3 1/16x3 1/16	235	6.6	192	93–3100	4–2 3/16x5 1/16	N	Chevrolet	16	Eat 1350	SFd	..	7.47–12.9	Chevrolet	C6IHV	512	836	a	TD	63	7 1/16x3x.47	CTf

▲ Includes cab. † Rear only; Front 11.00/24. ‡ Rear only; Front 12.00/24. ♦ Auxiliary transmission Spicer 8031

Aircraft Gas Turbine Engines

COUNTRY AND MANUFACTURER	Model Number	Type of Propulsion Unit	Performance at Sea Level—Standard Conditions Zero RAM: Thrust (lb.)	Propeller Shaft Hp.	Rpm	Specific Fuel Consumption (Lb. per hr. per lb. of thrust)	Performance at Altitude Standard Conditions: Altitude	Speed mph	Thrust (lb.)	Rpm	Specific Fuel Consumption (Lb. per hr. per lb. of Thrust)	Type of Compressor	Number of Stages: Compressor	Turbine	Combustion Chamber: Number Chambers	Type	Number Burners	Dimensions and Weight: Overall Diameter (In.)	Overall Length (In.)	Dry Weight (Lb.)
UNITED STATES																				
Allison Div.	J33-17	TJ	NA	.....	NA	1.224	NA	NA	NA	NA	1.226	Cent	1	1	14	DF	14	50.50	103.0	1,875
Allison Div.	J33-A-21	TJ	NA	.....	NA	1.224	NA	NA	NA	NA	1.225	Cent	1	1	14	DF	14	50.50	103.0	1,845
Allison Div.	J35-A-5	TJ	NA	.....	NA	1.115	NA	NA	NA	NA	1.080	Axial	11	1	8	DF	8	40.38	168.0	2,400
General Electric Co.	I-40	TJ	4,000	.....	11,500	1.185	NA	NA	NA	NA	NA	Cent	DE	1	14	DF	14	48.00	101.5	1,820
General Electric Co.	T6-100	PJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	Axial	NA	1	10	RF	10	NA	NA	NA
General Electric Co.	T6-180	TJ	NA	.....	NA	NA	NA	NA	NA	NA	NA	Axial	NA	NA	7	DF	NA	NA	NA	NA
Westinghouse Electric Corp.	X19B	TJ	1,368	.....	18,000	1.280	30,000	500	525	18,000	NA	Axial	6	1	1	DA	24	25.78	89.8	809
Westinghouse Electric Corp.	X9.5A	TJ	260	.....	34,000	1.600	10,000	600	184	34,000	NA	Axial	6	1	1	DA	12	20.25	49.9	145
Westinghouse Electric Corp.	X9.5B	TJ	275	.....	36,000	1.550	10,000	600	217	36,000	NA	Axial	6	1	1	DA	12	21.44	55.2	143
Westinghouse Electric Corp.	X19XB-2B	TJ	1,600	.....	17,000	1.150	30,000	500	603	17,000	NA	Axial	10	1	1	DA	24	19.00	94.0	718
GREAT BRITAIN																				
Armstrong-Siddeley	Mamba	PJ	320	1,000	14,500	95*	NA	NA	NA	NA	NA	Axial	10	2	6	DF	6	27.10	56.3	750
Armstrong-Siddeley	Python SP-1	PJ	1,150	3,670	8,000	359*	30,000	500	280 (a)	8,000	185*	Axial	14	2	11	RF	11	54.50	102.0	3,010
Armstrong-Siddeley	Python SP-2	PJ	1,150	3,670	8,000	359*	30,000	500	280 (a)	8,000	185*	Axial	14	2	11	RF	11	48.00	102.0	2,980
Bristol	Theseus	PJ	500	1,950	9,000	NA	NA	NA	NA	NA	NA	(b)	9	(c)	8	DF	8	48.00	112.3	2,310
de Havilland	Goblin II	TJ	3,000	.....	10,200	465*	30,000	500	1,300	10,200	225*	Cent	SE	1	16	DF	16	49.85	100.5	1,644
de Havilland	Ghost	TJ	5,000	.....	10,000	1.06	30,000	500	2,500	10,000	345*	Cent	SE	1	10	DF	10	53.00	115.5	2,011
Metropolitan-Vickers	F 2-4A	TJ	3,500	.....	7,700	1.05	NA	NA	NA	NA	NA	Axial	10	1	1	DA	20	37.30	146.4	1,750
Rolls-Royce	Derwent V	TJ	3,500	.....	14,700	1.02	30,000	600	1,250	14,100	NA	Cent	SE	1	9	DF	NA	43.00	83.1	1,250
Rolls-Royce	Nene I	TJ	5,000	.....	12,300	NA	30,000	600	2,060	12,000	NA	Cent	SE	1	9	DF	NA	49.50	96.8	1,600
Rolls-Royce	Dart	PJ	325	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32.50	80.0	800
Rolls-Royce	Clyde	PJ	1,225	3,020	6,000	NA	NA	NA	NA	NA	NA	(b)	10	2	NA	DF	NA	48.75	121.0	2,300

*—Gallons per hour
DA—Direct flow, annular chamber
(a)—Shaft hp. is 2,530 hp.
DE—Double entry
(b)—Multi-stage axial and single centrifugal
DF—Direct flow
NA—Information not available
(c)—Two stage turbine drives compressors, one stage turbine drives airscrew
PJ—Propeller—jet
RF—Reverse flow
SE—Single entry
Cent—Centrifugal
TJ—Turbo-jet

AMERICAN

Line Number	BUS MAKE AND MODEL	GENERAL: Passenger Rating	Type (City Service, Parlor, etc.)	Standard Wheelbase (In.)	Overall Length (In.)—Bumper to Bumper	Inside Length (In.)—Passenger Compartment	Tread (In.)—Front and Rear	Complete Vehicle Weight—Dry (Lb.)	Standard Tire Size (In.)—Front and Rear	ENGINE: Make and Model	Cycle and Fuel	Location	Number of Cylinders—Bore and Stroke (In.)	Displacement (Cu. In.)	Rated Horsepower (A.M.A.)	Maximum Brake Hp. at Governed R.P.M.	Maximum Net Torque (Lb. Ft.) at Specified R.P.M.	Compression Ratio—to 1	Compression Pressure—(Lb.) at Specified R.P.M.	Valve Arrangement	Oiling System: Pressure to—
1	A. C. F. (1) IC-41	37–41	Par	270	420	408½	79⅞–71	19500	11.00/22	HS....190	4-G	UF	6–5¼x6	779	68.0	214–2200	590–1200	5.40	.....	I	acd
2	A. C. F. C-36	36	CS	198½	389½	356½	79⅞–71	14300◦	10.00/20	HS....138	4-G	UF	6–4½x5	477	49.0	142–2400	340–1200	5.50	.....	I	acd
3	A. C. F. C-44	44	CS	249	420	407	79⅞–71	18000	11.00/20	HS....180	4-G	UF	6–5x6	707	60.0	200–2200	525–1200	6.00	.....	I	acdg
4	Aerocoach (2)....P47-37	37	Par	229	396	378	80¾–72½	15600	10.00/20	Int..RED450	4-G	TR	6–4⅜x5	451	45.9	147–2500	360–1200	6.30	122–160	I	abcdf
5	Aerocoach....P47-41	41	Par	261	420	405¾	79⅞–70⅝	20000	11.00/20	Cont R6572	4-G	TR	6–4¾x5⅝	572	54.2	210–2500	500–1400	6.75	140–200	I	abcdf
6	Aerocoach....T47-36	36	CS	210½	367	352	79½–73	13000	10.00/20	Cont R6513	4-G	TR	6–4½x5⅜	513	48.6	160–2500	375–1400	5.92	130–200	I	abcdf
7	Aerocoach....T47-40	40	CS	239½	396	381	79⅞–70⅝	13500	11.00/20	Cont R6572	4-G	TR	6–4¾x5⅝	572	54.2	210–2500	500–1400	6.75	140–200	I	abcdf
8	Avenue (14)....AG3101	31–33	CS	172½	349	247½	80¼–69¾	13280	9.00/20	Chr...IND11	4-G	R	6–3¾x5	331	....	124–3200	260–(aa)	6.65	100–115	L	acd
9	Avenue....AG2701	27–29	CS	153½	321½	220	80¼–69¾	12170	8.25/20	Chr...IND 8	4-G	R	6–3⅛x4½	251	....	114–3600	202–(bb)	6.60	100–125	L	acd
10	Beaver (3)....B-31PT	33	CS	164	331	169	79½–69¾	11900	8.25/20	Int..RED361	4-G	R	6–4⅛x4½	361	44.0	126–2800	282–1200	6.30	110–160	I	abcdefg
11	Beaver....B-35PT	37	CS	188	354	192	79½–69¾	12500	8.25/20	Int..RED450	4-G	R	6–4⅜x5	451	52.0	148–2800	362–1000	6.30	122–160	I	abcdefg
12	Beck (4)....Steeliner	24	Par	190	322	262	76–68	.....	8.25/20	Int..BLD269	4-G	Fr	6–3⅞x4½	269	30.4	100–3000	220–1000	6.13	.....	I	abcdf
13	Beck....Mainliner	33	Par	220	396	323	81¼–69¾	.....	10.00/20	Int..RED450	4-G	R	6–4⅜x5	450	45.9	140–2400	350–1000	6.30	.....	I	abcdf
14	Fitzjohn (5)....Cityliner	33–35	CS	165¼	334	320	82¾–69¾	12000	10.00/20	Her...JXLD	4-G	FH	6–4x4½	339	38.4	131–3000	272–1400	7.00	.....	L	abcdg
15	Fitzjohn....Duraliner	28	Par	185¾	321¼	286	77¾–65¼	12000	9.00/20	Her...JXLD	4-G	FH	6–4x4½	339	38.4	131–3000	272–1400	7.00	.....	L	abcdg
16	Fixible (6)....37C1-47	37	Par	231	418½	356	80¼–71½	17250	10.00/20	Che♣.....	4-G	R	♣6–3⅞x3¹¹⁄₁₆	470	60.8	186.....	384–††	6.62	.....	I	adf
17	Fixible....25B1-47	25	Par	182	359¾	252	80½–69⅝	12800	9.00/20	Bui...FB320	4-G	R	8–3⅛x4⅛	320	37.8	165.....	278–2200	6.70	.....	I	acdf
18	Fixible....25C1-47	25	Par	182	359¾	252	78–69¾	11330	8.25/20	Che.....	4-G	R	6–3⅞x3¹¹⁄₁₆	235	30.4	93.....	192–††	6.62	.....	I	adf
19	Fixible....23B3-47	23	Par	218	395½	288	80½–69⅝	13450	9.00/20	Bui...FB320	4-G	R	8–3⅛x4⅛	320	37.8	165.....	278–2200	6.70	.....	I	acdf
20	Fixible....29B1-47	29	Par	218	395½	288	80½–69⅝	13390	9.00/20	Bui...FB320	4-G	R	8–3⅛x4⅛	320	37.8	165.....	278–2200	6.70	.....	I	acdf
21	Fixible....23B2-47	23	Par	218	395½	288	80½–69⅝	13450	9.00/20	Bui...FB320	4-G	R	8–3⅛x4⅛	320	37.8	165.....	278–2200	6.70	.....	I	acdf
22	GMC (8)....TD-3207	32	CS	181½	340	310	81⅛–72½	13550	9.00/20	GMD...4-71	2-D	TR	4–4¼x5	284	28.9	133–2000	400–1200	16.0	500–1000	I	abcdf
23	GMC....TG-3207	32	CS	181½	340	310	81⅛–72½	12876	9.00/20	Own....477	4-G	TR	6–4½x5	477	48.6	154–2600	385–1000	6.00	140–1000	Is	abcdfgh
24	GMC....TD-3610	36	CS	210½	369	339	81⅛–72½	14018	9.00/20	GMD...4-71	2-D	TR	4–4¼x5	284	28.9	133–2000	400–1200	16.0	500–1000	I	abcdfg
25	GMC....TG-3610	36	CS	210½	369	339	81⅛–72½	13354	9.00/20	Own....477	4-G	TR	6–4½x5	477	48.6	154–2600	385–1000	6.00	140–1000	I	abcdfgh
26	GMC....TD-4008	40	CS	239½	396	368	80⅛–72½	15648	10.00/20	GMD...6-71	2-D	TR	6–4¼x5	426	43.3	170–2000	540–1200	16.0	500–1000	I	abcdfgh
27	GMC....TD-4507	45	CS	239½	420	392	80⅛–72½	16216	10.00/20	GMD...6-71	2-D	TR	6–4¼x5	426	43.3	170–2000	540–1200	16.0	500–1000	I	abcdfg
28	GMC....PD-2903	29	Par	218	395[12]	295	81½–73	13994	9.00/20	GMD....4-71	2-D	R	4–4¼x5	284	28.9	113–2000	360–1200	16.0	500–1000	I	abcdfg
29	GMC....PG-2904	29	Par	218	395[12]	295	81½–73	13136	9.00/20	Own....426	4-G	R	6–4¼x5	426	43.3	145–2600	345–800	6.00	145–1000	I	acdfh
30	GMC....PDA3703	37	Par	239	420	366	80½–72½	16892	10.00/20	GMD...4-71	2-D	R	4–4¼x5	284	28.9	133–2000	400–1200	16.0	500–1000	I	abcdfg
31	Mack....C41 Mech.	41	CS	237½	396	366⅝	80⅞–71½	.....	11.00/22	Own..EN672	4-G	TR	6–4⅞x6	672	57.0	187–2000	535–1000	6.15	.....	I	acdeh
32	Mack....C41 Hyd.	41	CS	237½	396	366⅝	80⅞–71½	.....	11.00/22	Own..EN672	4-G	TR	6–4⅞x6	672	57.0	187–2000	535–1000	6.15	.....	I	acdeh
33	Mack....C45 Mech.	45	CS	261½	420	390⅝	80⅞–71½	.....	11.00/22	Own..EN672	4-G	TR	6–4⅞x6	672	57.0	187–2000	535–1000	6.15	.....	I	acdeh
34	Mack....C45 Hyd.	45	CS	261½	420	390⅝	80⅞–71½	.....	11.00/22	Own..EN672	4-G	TR	6–4⅞x6	672	57.0	187–2000	535–1000	6.15	.....	I	acdeh
35	Pony Cruiser (9)....1947	21–25	CS	160	281	.....	68–70	5300	7.50/20	Che.....	4-G	FH	6–3⅜x3¹¹⁄₁₆	235	....	93.....	192–2000	6.62	.....	I	acd
36	Pony Cruiser....1947	21–25	CS	160	281	.....	68–70	5300	7.50/20	Mer.....	4-G	FH	8–3⅛x3¾	239	....	100.....	176–2000	6.40	125.....	L	acd
37	Pony Cruiser....1947	21–27	CP	160	281	.....	69¹¹⁄₁₆–66¼	.....	7.50/20	Int.....K-7	4-G	FH	6–3⅛x4½	269	30.4	100–3000	222–1600	6.30	.....	I	abcdf
38	Reo (10)....96	31–33	CS	196	364	.....	82¼–69¾	13620	9.00/20	Cont..B-8427	4-G	R	6–4⅛x4⅞	427	44.6	127–2600	324–1200	6.14	114–1231	L	abcd
39	Southern (11)....F-31	32	CS	175	319	305	81¼–69¾	11600	9.00/20	Wau..6MZR	4-G	UF	6–4¼x4¾	404	....	112–2500	305–700	5.90	.....	L	abcdegh
40	Transit (7)....69B	29	CS	148½	309	270	83–84	10510	‡	Ford.....V8	4-G	R	8–3⅛x3¾	239	32.0	100–3000	180–2000	6.75	134–2200	L	acd
41	Twin Coach (12)....34-S	34	CS	189	350½	300	80–73¼	12210	10.00/20**	Own.FTC180	4-G	UF	6–4¼x4¾	404	43.4	180–2800	380–1600	7.30	165–120	I	abcdfg
42	Twin Coach....38-S	38	CS	189	373	322½	80–73¼	12880	10.00/20**	Own.FTC180	4-G	UF	6–4¼x4¾	404	43.4	180–2800	380–1600	7.30	165–120	I	abcdfg
43	Twin Coach....41-S	41	CS	211½	395½	345½	80¹¹⁄₁₆–73¼	13500	11.0/20**	Own.FTC180	4-G	UF	6–4¼x4¾	404	43.4	180–2800	380–1600	7.30	165–120	I	abcdfg
44	Twin Coach....44-D	44	CS	218	418	367½	80¹¹⁄₁₆–73¼	16070	11.0/20**	Own♣FTC180	4-G	UF	♣6–4¼x4¾	404	43.4	180■2800	380■1600	7.30	165–120	I	abcdfg
45	Twin Coach....34-SW	34	CS	189	350½	300	88¼–81¼	12210	10.00/20**	Fag..FTC180	4-G	UF	6–4¼x4¾	404	43.4	180–2800	380–1600	7.30	165–120	I	abcdfg
46	Twin Coach....41D	41	CS	211½	395½	345½	80¹¹⁄₁₆–73¼	15600	11.00/20**	Fag..FTC180	4-G	UF	6–4¼x4¾	404	43.4	180–2800	380–1600	7.30	165–120	I	abcdfg
47	Twin Coach....44S	44	CS	218	418	367½	80¹¹⁄₁₆–73¼	14300	11.00/20**	Fag..FTC180	4-G	UF	6–4¼x4¾	404	43.4	180–2800	380–1600	7.30	165–120	I	abcdfg
48	White (13)....788	40	Tr	214	395[11]	.....	82[11]–71¾	16400◦	10.00/20	Own.....24A	4-G	UFA	12–4⅛x4¼	681	81.7	207–2600	500–1200	5.65	.....	L	abcdefgh
49	White....798	45	Tr	238	419[15]	.....	82⅝–71¾	17410◦	11.00/20	Own.....24A	4-G	UFA	12–4⅛x4¼	681	81.7	207–2600	500–1200	5.65	.....	L	abcdefgh

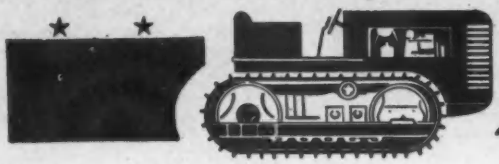
ABBREVIATIONS FOR BUSES

••—Torque Converter
•—Wet Weight
■—Hundred R.P.Ms.
■—Each Engine
◦—16½ on rear
♣—Two used
‡—9.00/18 Front; 7.50/20 Rear
††—800–2000 R.P.M.
******—9.00/20 Rear
†—Front 14½; Rear 15.
‡—There are 4 front and 4 rear springs of dimensions shown.
(1)—A.C.F.-Brill Motors Co.
(2)—General American Aerocoach Co
(3)—Beaver Metropolitan Coaches.
(4)—C. D. Beck Co.
(5)—Fitzjohn Coach Co.
(6)—The Flexible Co.
(7)—Transit Buses, Inc., (Ford Motor Co.)
(8)—G.M.C. Truck & Coach Div.
(9)—Kalamazoo Coach Co.
(10)—Reo Motors Co.
(11)—Southern Coach Mfg. Co.
(12)—Twin Coach Co.
(13)—White Motor Co.
(14)—Superior Coach Corp.
a—Main Bearings
(aa)—1200 to 1600 rpm
A—Air Pressure (Brakes)
AL—Electric Auto-Lite
b—Wrist Pins
BB—Borg & Beck
(bb)—1200 to 1800 rpm
BL—Brown-Lipe (Spicer Mfg. Corp.)
Bos—American Bosch Corp.
Bui—Buick Motor Div.
c—Connecting Rods
Ce—Centrifugal
Che—Chevrolet Motor Div
Chr—Chrysler
Cla—Clark Equipment Co.
Cont—Continenta
CP—City Service and Parlor
CS—City service
d—Camshaft
D—Diesel or heavy oil
DD—Dual Downdraft
Dn—Dayton Steel Foundry Co.
Do—Downdraft
DR—Delco-Remy Div.
Ds—Drive Shaft
e—Accessory Drive
f—Valve lifters or Rocker Arms and Shafts
F—Ford
F-G—Ford-Gemmer

BUS CHASSIS

FUEL SYSTEM			ELECTRICAL SYSTEM			Governor			TRANSMISSION				Universals		REAR AXLE		BRAKES					SPRINGS				RUNNING GEAR			
Carburetor or Injector Pump					Battery												Service			Hand	Front		Rear					
Make and Type	Size (In.)	Tank Capacity (Gal.)	Ignition System—Make	Generator and Starter—Make	Voltage and Amp. Hours Capacity	Type	Max. Governed Speed—M.P.H.	Clutch—Make and Size (In. diam.)	Make	No. of Forward Speeds	Low Speed Ratio—to 1	Type	Number	Size of Series	Make and Model	Standard Gear Ratio—to 1	Type of Applicator	Total Lining Area (Sq. In.)	Drum Diam. (In.)	Operates on—	Total Lining Area (Sq. In.)	No. of Leaves	Length and Width (In.)	No. of Leaves	Length and Width (In.)	Front Axle—Make	Steering Gear—Make	Outside Diameter of Min. Turn. Circle (Ft.)	Number Line
Zen..Up	2	120	DR	DR	12–158½	Ce	68	Lg....17	Spi	4	4.36	M	2	1700	Tim....59070W	4.11	A	898	16½	Ds	139	‡	59–7	‡	76–8	Tim	Gem	84	1
Zen..Up	1¾	90	DR	DR	12–158½	Ce	51	Lg...15½	Spi	3	3.80	M	2	1600	Tim....58285W	5.57	A	690	16½	Ds	111	‡	60–7	‡	72–8	Tim	Gem	73	2
Zen..Up	2	90	DR	DR	12–158	Ce	52	BL.....17	Spi	3	3.32	M	2	1600	Tim....59070W	5.14	A	829	16½	Ds	139	2	66–7	3	76–8	Tim	Gem	88	3
Zen..Do	1¾	100	DR	DR	12–158	Ce	25*	Lg.....14	Cla	5	5.22	M	2	1600	Tim.....58000	4.11	A	744	16½	Ds	73	...	51–3	...	65–3	Tim	Ro	83	4
Zen..Do	1¾	150	MA	DR	12–158½	Ce	25*	Spi....16	Spi**	If	6.60	H	2	1700	Tim...R100DF	4.11	A	892	15	Ds	140½	...	Special	...	Special	Tim	Ro	91	5
Zen..Do	1¾	66	MA	DR	12–158½	Ce	25*	Spi....16	Spi**	If	6.60	H	2	1600	Tim...L100DP	6.16	A	554	15	Ds	140½	...	Special	...	Special	Tim	Ro	68	6
Zen..Do	1¾	100	MA	DR	12–158½	Ce	25*	Spi....16	Spi**	If	6.60	H	2	1700	Tim...R100DP	6.14	A	692	15	Ds	140½	...	Special	...	Special	Tim	Ro	71¼	7
.....Do	...	60	AL	DR	12–140	Su	29*	Spi....14	Spi	4	4.57	M	2	1500	Tim...56410PA	6.56	A	362	16½	Ds	45	10	52–3	13	55–3	Tim	Ro	62	8
.....Do	1 11/16	42	AL	DR	12–140	Su	29*	Spi....14	Spi	4	4.57	M	2	1500	Tim...56410PA	6.56	A	362	16½	Ds	45	10	52–3	13	55–3	Tim	Ro	56	9
Zen..Up	1½	65	DR	DR	12–158	Su	....	Roc....14	BL	3	3.96	M	2	1500	Tim 56410PAX5	5.28	A	530	16½*	Ds	45	14	60–3	16	60–3	Tim	Ro	27½	10
Zen..Up	1¾	65	DR	DR	12–158	Su	....	Roc....14	BL	3	3.96	M	2	1500	Tim 56410PAX5	5.28	....	530	16¼*	Ds	45	14	60–3	16	60–3	Tim	Ro	27½	11
Zen..Do	...	40	DR	DR	12–	...	Ng	Roc....11	Fu	5	6.52	M	4	5-C	Tim.....53000	5.14	A	417	.....	Ds	88	10	46–2½	10	52–2½	Tim	Ro	....	12
Hol..DD	...	100	DR	DR	12–	Su	24*	Roc....14	Fu	5	6.52	M	2	1500	Tim..54610-PA	5.28	A	598	17¼*	Ds	88	14	52–3	16	58–3	Tim	Ro	....	13
Zen..Up	1¾	60	DR	DR	12–160	Ce	55	WL....13	Cla	3	3.90	M	4	1400	Tim.....	5.57	A	594	16½	Ds	88	12	54–3	12	60–3	Tim	Ro	31½	14
Zen..Up	1¾	73	DR	DR	12–160	Ce	65	WL....13	Cla	4	5.00	M	3	1400	Tim.....	7.85	A	796	14½	Ds	88	11	50–3	13	63½–3	Tim	Ro	33½	15
.....Do	...	115	DR	DR	12–120	Ce	69	Che....11	Spi	4	4.36	M	2	9310	Tim.....L110	5.75	A	....	16	Ds	....	11	56–4	14	60–4	Tim	Ro	72.8	16
Str...Do	...	80	DR	DR	12–120	Ce	59	Spi....13	Spi	4	4.57	M	2	1500	Tim.....H110	6.16	A	....	16	Ds	....	12	52–3	15	56–3	Tim	Ro	76	17
.....Do	...	80	DR	DR	12–120	Su	58	Che....11	Spi	4	6.35	M	2	1400	Ti. 53587TWX1	5.83	A	....	16	Ds	....	12	52–2½	15	56–2½	Tim	Ro	76	18
Str...Do	...	80	DR	DR	12–120	Ce	59	Spi....13	Spi	4	4.57	M	2	1500	Tim.....H110	6.16	A	....	16	Ds	....	12	52–3	15	56–3	Tim	Ro	82.7	19
Str...Do	...	80	DR	DR	12–120	Ce	59	Spi....13	Spi	4	4.57	M	2	1500	Tim.....H110	6.16	A	....	16	Ds	....	12	52–3	15	56–3	Tim	Ro	82.7	20
Str...Do	...	80	DR	DR	12–120	Ce	59	Spi....13	Spi	4	4.57	M	2	1500	Tim.....H110	6.16	A	....	16	Ds	....	12	52–3	15	56–3	Tim	Ro	82.7	21
Own.....	...	85	....	DR	12–126½	Ce	46	Lg...15½	Spi	3	3.50	M	2	1600	Tim.57452WX1	4.72	A	587	14½	Ds	69	11	58–3½	13	62–3½	Tim	Sag	66½	22
Zen...Do	1¾	85	DR	DR	12–126½	Ce	50	Lg...15½	Spi	3	3.50	M	2	1600	Tim.57452WX1	5.43	A	587	14½	Ds	69	11	58–3½	13	62–3½	Tim	Sag	66½	23
Own.....	...	85	....	DR	12–126½	Ce	46	Lg...15½	Spi	3	3.50	M	2	1600	Tim.57452WX1	4.72	A	587	14½	Ds	69	12	58–3½	12	62–4	Tim	Sag	73	24
Zen...Do	1¾	85	DR	DR	12–126½	Ce	47	Lg...15½	Spi	3	3.50	M	2	1600	Tim.57452WX1	5.83	A	587	14½	Ds	69	12	58–3½	12	62–4	Tim	Sag	73	25
Own.....	...	85	....	DR	12–126½	Ce	49	Lg.....17	Spi	3	3.32	M	2	1700	Ti. 58455WX13	3.87	A	764	14½	Ds	104	13	58–3½	13	62–4	Tim	Sag	80	26
Own.....	...	85	....	DR	12–126½	Ce	49	Lg.....17	Spi	3	3.32	M	2	1700	Tim.58458WX4	3.87	A	764	14½	Ds	104	13	58–3½	15	62–4	Tim	Sag	80	27
Own.....	...	110	....	DR	12–126½	Ce	59	Lg...15½	Cla	4	4.88	M	2	1600	Ti. 55600TWX1	3.88	A	587	14½	Ds	88½	10	49¼–3	13	58–3½	Tim	Ro	85	28
Zen...Do	1¾	110	DR	DR	12–113½	Ce	67	Lg.....14	Cla	4	4.88	M	2	1500	Ti. 55600TWX1	4.11	A	587	14½	Ds	88½	10	49¼–3	12	58–3½	Tim	Ro	85	29
Own.....	...	100	....	DR	12–126½	Ce	57	Lg...15½	Cla	4	4.88	M	2	1600	Tim.58352WX4	4.11	A	646	14½	Ds	136	10	53–4	12	67–4	Tim	Ro	96	30
Hol...Do	...	100	DR	DR	12–158	Ce	20*	Own.16¾	Own	3	3.66	M	2	700	Own....RA103	Var	A	759	16½	Ds	122	...	70–4	...	82–4	Own	Gem	72½	31
Hol...Do	...	100	DR	DR	12–158	Ce	20*	Spi....16	Spi	If	.....	H	2	700	Own....RA103	Var	A	759	16½	Ds	122	...	70–4	...	82–4	Own	Gem	72½	32
Hol...Do	...	100	DR	DR	12–158	Ce	20*	Own.16¾	Own	3	3.66	M	2	700	Own....RA103	Var	A	759	16½	Ds	122	...	70–4	...	82–4	Own	Gem	78½	33
Hol...Do	...	100	DR	DR	12–158	Ce	20*	Spi....16	Spi	If	.....	H	2	700	Own....RA103	Var	A	759	16½	Ds	122	...	70–4	...	82–4	Own	Gem	76½	34
.....Do	1¼	40	DR	Bos	6–205	Su	....	Lg.....	Che	4	7.06	M	3	....	.....	.....	H	....	.....	.....	.....	13	38¾–2	12	54½–2½	Cla	Che	69	35
Gro...Do	...	40	Fo	Bos	6–205	Su	....	.....	Fo	...	...	M	3	....	Tim.....	.....	H	....	.....	.....	.....	13	38¾–2	13	54–2½	Cla	Fo	59	36
Hol...Do	...	31	AL	AL	6–205	...	....	Int..10⅞	.....	5	6.52	M	3	....	Int.....R1560	5.62	H	421	†	Ds	75	9	46–2¼	11	54–3	.....	Ro	59	37
Zen..Up	...	75	DR	DR	12–152	Su	26*	BB....14	Spi	3	3.72	M	1	....	Tim.....56000	6.16	A	570	16½	Ds	83½	11	50–3	12	54–3	Tim	Ro	30	38
Zen..Do	1¾	72	Op	Op	12.....	Ce	48	BL.....14	Spi	3	3.80	M	2	1600	Tim...56410PA	5.71	A	576	17¼*	Ds	98	11	58–3	13	64–3	Tim	Ro	65	39
F-Hol Do	...	60	Fo	Fo	12–158	Su	30*	F-Lg...11	F-Spi	3	3.81	M	2	....	F-Tim.....59B	5.83	A	472	14½	Ds	55½	10	54–3	14	58–3	F Tim	F-G	61	40
Hol...Do	...	80	DR	DR	12–170	Ce	24*	None	Spi**	If	5.40	H	..	1608	Tim.....	5.83	A	693	14½	Ds	65½	To	rsilastic	To	rsilastic	Tim	Gem	70⅝	41
Hol...Do	...	80	DR	DR	12–170	Ce	24*	None	Spi**	If	5.40	H	...	1608	Tim.....	5.83	A	693	14½	Ds	65½	To	rsilastic	To	rsilastic	Tim	Gem	70⅝	42
Hol...Do	...	80	DR	DR	12–170	Ce	24*	None	Spi**	If	5.40	H	...	1608	Tim.....	6.16	A	768	14½	Ds	65½	To	rsilastic	To	rsilastic	Tim	Gem	77⅝	43
Hol...Do	...	125	DR	DR	12–170	Ce	24*	None	Spi**	If	5.40	H	..	1608	Tim.....	4.11	A	751	14½	Ds	65½	To	rsilastic	To	rsilastic	Tim	Gem	79⅝	44
Hol...Do	...	80	DR	DR	12–170	Su	55	None	Spi**	If	5.40	H	2	1700	Tim....J153A1	8.34	A	693	14½	Ds	65½	To	rsilastic	To	rsilastic	Tim	Gem	70⅝	45
Hol...Do	...	125	DR	DR	12–170	Su	78	None	Spi**	If	5.40	H	2	1700	Tim..J152WX3	4.11	A	768	14½	Ds	65½	To	rsilastic	To	rsilastic	Tim	Gem	77⅝	46
Hol...Do	...	125	DR	DR	12–170	Su	52	None	Spi**	If	5.40	H	2	1700	Tim...58268C3	6.16	A	751	14½	Ds	65½	To	rsilastic	To	rsilastic	Tim	Gem	79⅝	47
Zen...Do	1⅜	105	DR	DR	12–152	...	26*	.....13¾	Own	3	3.32	M	2	1700	Own.....34C	5.22	A	818	15	Ds	123	11	58⅜–3½	14	64–4	Own	Ro	64½	48
Zen...Do	1⅜	105	DR	DR	12–152	...	26*	.....13¾	Own	3	3.32	M	2	1700	Own.....34C	5.22	A	818	15	Ds	123	12	58⅜–3½	14	64–4	Own	Ro	72	49

FH—Front end, under hood
Fo—Ford Motor Co.
F-Hol—Ford-Holley
F-Lg—Ford-Long
Fr—Front
F-Spi—Ford-Spicer
Fu—Fuller Mfg. Co.
g—Timing Gears or Chain
G—Gasoline
Gem—Gemmer Mfg. Co.
G.M.C.—General Motors Truck & Coach Mfg. Co.
Gro—Grove
h—Air Compressor
H—Hydraulic
Her—Hercules Motor Corp.
Hol—Holley
HS—Hall-Scott Motor Car Co.
I—In-Head (Valves)
If—Infinite
Is—In head and side (F)
Int—International Harvester Co.
L—At Side (Valves)
Lg—Long Mfg. Div.
M—Mechanical
MA—Mallory
Mer—Mercury
N—No or None
Ng—Not governed
Op—Optional
Par—Parlor Coach
R—Rear (Engine Location)
RG—Ross or Gemmer
Ro—Ross Gear & Tool Co.
Roc—Rockford Drilling Machine Div.
Sag—Saginaw Steering Gear Div.
Spi—Spicer Mfg. Corp.
Str—Stromberg Carburetor Div.
Su—Suction
Tr—Transit Coach
TR—Transverse at Rear
Tim—Timken Detroit Axle Co.
UF—Under floor
UFA—Under Floor, Amidship
UFF—Under floor forward
Up—Updraft
Var—Various
Wau—Waukesha
WL—Lipe Rollway Corp.
Zen—Zenith Carburetor Div.



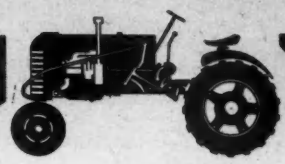
AMERICAN

CURRENT MODELS

Line Number	TRACTOR MAKE AND MODEL	GENERAL: Wheelbase (In.)	GENERAL: Minimum Turning Radius—Outside (Ft.)	GENERAL: Ground Clearance (In.)	GENERAL: Shipping Weight with Rubber Tires (Lb.)	GENERAL: TREAD (In.) Minimum	GENERAL: TREAD (In.) Maximum	DRAWBAR: Lateral Adjustment (In.)	DRAWBAR: Height Above Ground (In.)	OVERALL DIMENSIONS: Length (In.)	OVERALL DIMENSIONS: Width (In.)	OVERALL DIMENSIONS: Height—To Highest Point (In.)	WHEELS: Standard Equipment	WHEELS: STEEL Diam. and Face: Front (In.)	WHEELS: STEEL Diam. and Face: Rear (In.)	WHEELS: TIRE SIZE: Front (In.)	WHEELS: TIRE SIZE: Rear (In.)	HP. RATING: Belt	HP. RATING: Drawbar	Nebraska Test Number	Power Take-off	Number of Forward Speeds	Number of Reverse Speeds	Travel Speeds at Normal Governed Engine R.P.M (M.P.H.) with Standard Wheels: First	Second	Third	Fourth
1	Allis-Chalmers.....IB	87 1/2	7	12 7/8	2365	40 1/2	62 1/2	....	11 1/2	97 1/2	52 3/4	54 1/2	RT	.....	.....	5.00/15	9.00/24	16.31	13.54		Op	3	1	3.30	5.30	10.8	
2	Allis-Chalmers.....B	73 3/4	7 3/4	21 3/4 ‡	2060	40 1/2	52 1/2	22 1/4	12 1/2	110 1/4	52 1/4	62	RT	22x4	36x8	4.00/15	8.00/24	16 31*	13.54*	302	Op	3	1	2.60	4.01	7.98	
3	Allis-Chalmers.....C	77	7	23 1/4 †	2250	52	80	22 1/4	12 1/2	114	68 1/4	62 3/4	RT	22x4	36x8	4.00/15	9.00/24	23.81**	18.74**	364	Op	3	1	2.30	3.80	7.16	
4	Allis-Chalmers.....WC	97 1/2	8	29 3/4 †	3310	64 1/4	75 1/4	10 1/2	16	128 1/4	76 1/2	67 1/2	RS	24x4	40x8	5.50/16	11.00/28	31.43**	23.58**	304	Op	4	1	2.64	3.94	5.10	
5	Allis-Chalmers.....WF	70	12	13	3490	45 1/4	56 1/2	10 1/2	14 1/4	117 1/2	57 1/4	60 1/4	RS	24x4	40x8	5.50/16	11.00/28	31.43**	23.58*	...	Op	4	1	2.60	3.90	5.19	
6	Avery.....A	80	Piv	23	2240	48	78	20	18 1/2	118	85*	95	RT	.....	.....	5.50/16	9.00/24	.....	.....	..	Op	3	1	2.75	3.80	6.06	
7	Avery.....V	74	9	23	1625	40	40	24	13 5/8	105	51	61 1/4	RT	.....	.....	4.00/15	7.00/24	.....	.....	..	Op	3	1	2.68	3.53	7.20	
8	Case.....VA	78 1/4	9 1/2	15 1/2	.....	44	72 1/2	18	.....	102	65	51 1/2	Op	25x4	38x8	5.00/15	9/24	.....	.....	NT	Op	4	1	2.50	4.25	8.88	
9	Case.....VAC	83	8 1/2	19 1/2	.....	44	88	18	.....	119	88	56 1/2	Op	21x3 1/2	42x3	5.00/15	9/32	.....	.....	NT	Op	4	1	2.50	3.25	4.25	
10	Case.....VAI	78 1/4	9 1/2	15 1/2	.....	44	72 1/2	N	12 7/8	108	65	51 1/2	RT	.....	.....	4.00/15	9/24	.....	.....	NT	Op	4	1	2.48	4.28	5.48	
11	Case.....VAIW	54 1/2	9	8 1/2	.....	33 1/4	.....	N	11 3/4	105 1/4	43 1/4	53 1/2	RT	.....	.....	6.00/9	7.50/16	.....	.....	NT	...	4	1	2.62	4.83	6.81	
12	Case.....S	68	10	.....	.....	48	.....	18	.....	108 1/2	58 1/2	51	Op	25x4	42x8	5.00/15	11/26	.....	.....	NT	Op	4	1	2.50	3.90	4.78	
13	Case.....SC	82 1/2	Piv	.....	.....	44	80	17	.....	126 1/4	74 1/2	58	Op	24 1/2x4	48x2 1/2	5.00/15	10/38	.....	.....	NT	Op	4	1	2.50	3.50	4.78	
14	Case.....SI	85 3/4	11 1/2	.....	.....	48 1/2	.....	N	.....	110 3/4	80 1/4	74 1/4	RT	.....	.....	6.00/16	12.00/24	.....	.....	NT	Op	4	1	2.52	3.57	4.93	
15	Case.....D	86 3/4	10	.....	.....	50	.....	20	.....	116	81 1/2	49 1/4	Op	28x8	42x11 1/4	6.00/16	12/26	.....	.....	349	Op	4	1	2.50	3.50	4.78	
16	Case.....DC	89	Piv	.....	.....	48	84	21	.....	134 1/2	81	56 1/2	Op	28x4	48x2 1/2	5.50/16	11/38	.....	.....	340	Op	4	1	2.50	3.50	4.78	
17	Case.....DI	86 7/8	10	.....	.....	51 1/4	.....	N	.....	111	85 1/2	75	RT	.....	.....	6.00/16	13.00/24	.....	.....	NT	Op	4	1	2.24	4.29	5.91	
18	Case.....LA	82	13	.....	.....	59 1/2	.....	33 1/4	.....	138	72 1/4	59 1/4	Op	30x6	48x12	7.50/18	14.00/30	.....	.....	NT	Op	4	1	2.75	3.75	4.98	
19	Case.....LAI	82	16	.....	.....	59 1/2	.....	N	.....	130	73 7/8	86	RT	.....	.....	7.50/20	14.00/28	.....	.....	NT	Op	4	1	1.70	3.00	3.70	
20	Ford-Ferguson..System 9N	70	15	13	2140	48	78	N	17 1/2	115	64	52	RT	.... ..	.....	4.00/19	10.00/32	20.29	16.90	..	Op	3	1	2.51	3.23	7.46	
21	I.H.C.....Farmall-A	71 1/2	9	20 7/8	1870	44F	68R	19	14 3/8	108 1/4	76 3/4	63 1/4	RT	.....	.....	4.00/15	8/24	19.06	17.35	329	Op	4	1	2.25	3.60	4.62	
22	I.H.C.....Farmall-AV	71 1/2	8 1/2	26 1/2	2280	44F	68	19	14	115 3/8	78 1/4	63 1/2	RT	.....	.....	4.00/19	8/36	19.00	17.00	NT	Op	4	1	2.87	4.62	6.12	
23	I.H.C.....Farmall-B	72 1/4	8 1/2	23 1/4	1830	64R	92R	33 3/4	14 1/2	107 7/8	100 1/2	65 1/2	RT	.....	.....	6.00/12S	8/24	19.22	17.31	331	Op	4	1	2.25	3.50	4.62	
24	I.H.C.....Farmall-BN	72 1/4	8 1/2	23 1/4	1780	56R	84R	26 1/4	14 1/2	107 7/8	92 1/4	65 1/2	RT	.....	.....	6.00/12S	8/24	19.00	17.00	NT	Op	4	1	2.25	3.50	4.62	
25	I.H.C.....Farmall-H	88 3/4	8 1/2	23 1/4	3335	44R	80R	26	14 1/2	131 1/2	86	74 1/4	Op	22 1/2x3 1/2	51x6	5.50/16	10/38	27.90▲	25.50▲	333	Op	5▲	1	2.62	3.50	4.35	
26	I.H.C.....Farmall-HV	91 1/2	12 1/2	30 1/4	4430	60	72R	30	17 1/4	148 1/2	85 1/4	87 1/4	RT	.....	.....	6.00/20	9.00/36	27.80▲	25.00▲	NT	Op	5	1	2.50	3.37	4.00	
27	I.H.C.....Farmall-M	88 1/4	8 1/2	23 1/4	4415	52R	88R	26	15	131 1/2	96	76	Op	22 1/2x4	51x6	6.00/16	11/38	39.23▲	34.44▲	328	Op	5▲	1	2.62	3.50	4.35	
28	I.H.C.....Farmall-MV	91 1/2	12 1/2	29 7/8	5505	60	72R	30	19 1/2	148 1/2	95 1/4	80 1/4	RT	.....	.....	6.00/20	10.00/36	38.50▲	33.50▲	NT	Op	5	1	2.50	3.37	4.12	
29	I.H.C.....Farmall-MD	90 1/4	8 1/2	23 1/4	4745	52R	88R	26	15	133	96	76	Op	22 1/2x4	51x8	6.00/16	11/38	38.56	33.04	368	Op	5▲	1	2.62	3.50	4.35	
30	I.H.C.....Farmall-MDV	93	12 1/2	29 1/4	5835	60	72R	30	18 1/4	148	95 1/2	90 1/4	RT	.....	.....	6.00/20	10.00/36	36.00	31.50	NT	Op	5	1	2.50	3.37	4.12	
31	I.H.C.....McC.-D.-W4	66 3/4	11	11 1/2	3350	46 1/4 F	50 1/4 R	18 1/4	11 1/2	114 1/4	58 1/2	60 1/4	Op	22 1x3 1	40x8	5.50/16	11/26	27.89▲	25.67▲	353	Op	5▲	1	2.37	3.12	4.09	
32	I.H.C.....McC.-D.-W6	76 1/4	12 1/4	10 1/2	4450	47 1/4 F	53R	18 1/4	12 1/4	125 1/4	63	66 3/4	Op	22 1/2x4	42x10	6.00/16	12/30	38.74▲	33.81▲	355	Op	5▲	1	2.12	3.12	4.09	
33	I.H.C.....McC.-D.-WD6	76 1/4	12 1/4	10 1/2	4765	47 1/4 F	53R	18 1/4	12 1/4	125 1/4	63	66 3/4	Op	22 1/2x4	42x10	6.00/16	12/30	36.38	31.38	356	Op	5▲	1	2.12	3.12	4.09	
34	I.H.C.....McC.-D.-W9	83 1/4	15	12 3/4	5780	50F	57 1/4 R	18 1/4	11 1/4	134 1/2	69 3/4	66	Op	30x6	48x12	7.50/18	13/34	52.36▲	47.08▲	369	Op	5▲	1	2.25	3.00	4.25	
35	I.H.C.....McC.-D.-WR9	83 1/4	15	15 7/8	6110	51 1/2 F	57 1/4 R	18 1/4	15	139 1/4	69 1/4	72 3/4	Op	34x6	54x12	7.50/18	15/34	52.00▲	46.00▲	NT	Op	5▲	1	2.62	3.50	4.37	
36	I.H.C.....McC.-D.-WD9	83 1/4	15	12 3/4	6015	50F	57 1/4 R	18 1/4	11 1/4	134 1/2	69 3/4	66	Op	30x8	48x12	7.50/18	13/34	49.17	44.78	370	Op	5▲	1	2.25	3.00	4.25	
37	I.H.C.....McC.-D.-WDR9	83 1/4	15	15 7/8	6345	51 1/2 F	57 1/4 R	18 1/4	15	139 1/4	69 1/4	72 3/4	Op	34x6	54x12	7.50/18	15/34	49.00	43.50	NT	Op	5▲	1	2.62	3.50	4.37	
38	I.H.C.....McC.-D.-O4	66 3/4	11	11 1/2	4010	45 1/4 F	41 3/4 R	28 1/4	12 1/4	120 1/2	60 1/4	58 1/4	RT	.....	.....	5.50/16	11/26	27.50▲	25.00▲	NT	Op	5	1	1.50	3.00	3.87	
39	I.H.C.....McC.-D.-OS4	66 3/4	11	11 1/2	3825	45 1/4 F	41 1/4 R	28 1/4	12 1/4	120 1/2	55 1/4	58 1/4	RT	.....	.....	5.50/16	11/26	27.50▲	25.00▲	NT	Op	5	1	1.50	3.00	3.87	
40	I.H.C.....McC.-D.-O6	76 1/4	12 1/4	10 1/2	5110	46 3/4 F	45R	27 1/4	13	133 1/4	65	61 1/2	RT	.....	.....	6.00/16	12/26	38.50▲	33.50▲	NT	Op	5	1	1.50	3.00	3.87	
41	I.H.C.....McC.-D.-OS6	76 1/4	12 1/4	10 1/2	4815	46 3/4 F	45R	27 1/4	13	133 1/4	58 1/4	61 1/2	RT	.....	.....	6.00/16	12/26	38.50▲	33.50▲	NT	Op	5	1	1.50	3.00	3.87	
42	I.H.C.....McC.-D.-ODS6	76 1/4	12 3/4	10 1/4	5125	48 3/4 F	45R	27 1/4	13	133 1/4	58 1/4	61 1/2	RT	.....	.....	6.00/16	12/26	36.00	31.50	NT	Op	5	1	1.50	3.00	3.87	
43	I.H.C.....International-A	71 1/2	10	14 3/4	1940	44F	68R	19	13 1/4	106	76 3/4	62 3/4	RT	.....	.....	4.00/15	8/24	16.80	15.30	NT	Op	4	1	2.10	3.40	4.86	
44	International..I-4 Standard	66 1/4	10	12 1/4	3780	48 1/4	.....	....	10 1/4	113 1/4	58 7/8	62 3/4	RT	.....	.....	5.50/16	12.00/24	27.50	25.00	...	Op	5	1	2.20	3.80	5.29	
45	International..I-6 Standard	76 1/4	11 1/4	11 1/2	4790	50	.....	....	10 1/4	125 1/4	64	68 3/4	RT	.....	.....	6.00/16	13.00/24	38.50	34.00	...	Op	5	1	2.20	3.80	5.29	
46	International.ID6 Standard	76 1/4	11 1/4	11 1/2	5120	50	.....	....	10 1/4	125 1/4	64	68 3/4	RT	.....	.....	6.00/16	13.00/24	36.00	32.00	...	Op	5	1	2.20	3.80	5.29	
47	International..I-9 Standard	83 1/4	14	13 1/4	6310	50 1/4	.....	....	12 1/2	132 1/4	67 3/4	69	RT	.....	.....	7.50/18	13.00/32	52.00	46.50	...	Op	5	1	2.30	3.10	5.30	
48	International.ID9 Standard	83 1/4	14	13 1/4	6585	50 1/2	.....	....	12 1/2	132 1/4	67 3/4	69	RT	.....	.....	7.50/18	13.00/32	49.00	44.00	...	Op	5	1	2.30	3.10	5.30	
49	John Deere (1).....L	61	7	.....	.....	38	54	18 1/2	.....	91	49	57	RT	.....	.....	4.00/15	6.00/22	10.42	9.06	313	...	3	1	2.00	3.50	6.99	
50	John Deere.....LA	61	7	.....	.....	38	54	18 1/2	.....	93	51	60	RT	.....	.....	4.00/15	8.00/24	14.34	13.10	373	...	3	1	2.50	3.50	9.00	
51	John Deere.....H	76	7 1/2	.....	.....	44	84	16 3/4	.....	112 1/4	79 1/4	73 1/2	RT	.....	.....	4.00/15	9.00/32	14.84	12.48	312	...	3	1	2.50	3.50	5.75	
52	John Deere.....B	85	7 1/2	.....	.....	56	84	24	.....	128 1/2	83	78	RT	.....	.....	5.00/15	10.00/38	20.52	17.95	366	...	6	1	2 33	3. 5	4.25	
53	John Deere.....BO	68	8 1/2	.....	.....	44 1/2	44 1/2	26 1/2	.....	117 1/2	55 1/4	57	RT	.....	.....	5.50/16	11.00/26	.....	.....	...	...	4	1	2.00	3.25	4.25	
54	John Deere.....BR	68	12 1/2	.....	.....	44 1/2	44 1/2	26 1/2	.....	117 1/2	55 1/4	65 1/2	RT	.....	.....	5.50/16	11.00/26	.....	.....	...	...	4	1	2.00	3.25	4.25	
55	John Deere.....A	90	8 1/2	.....	.....	56	84	26 1/2	.....	133 1/2	83	97	RT	.....	.....	5.50/16	11.00/38	29.59	26.20	335	...	6	1	2.50	3.25	4.26	
56	John Deere.....AR	76	13 1/2	.....	.....	52	52	27	.....	125 1/4	64	67	RT	.....	.....	6.00/16	13.00/26	30.33	26.52	378	...	4	1	2.00	3.00	4.00	
57	John Deere.....AO	76	9 1/2	.....	.....	52	52	27	.....	125 1/4	64	57	RT	.....	.....	6.00/16	13.00/26	.....	.....	...	...	4	1	2.00	3.00	4.00	
58	John Deere.....GM	91	8 1/2	.....	.....	60	84	24 3/4	.....	137 1/4	84 3/4	88 1/2	RT	.....	.....	6.00/16	12.00/38	.....	.....	...	...	6	1	2.50	3.50	4.90	
59	John Deere.....D	70	14	.....	.....	55	55	39 1/2	.....	130 1/2	70	86 3/4	RT	.....	.....	7.50/18	14.00/30	42.05	38.02	350	...	3	1	2.66	3.86	4.86	
60	Massey-Harris.....Std.-20	74 3/4	10	11 1/2	2710	47	47	18 3/4	10 1/2	111 1/2	56 1/4	73	RT	.....	.....	5.00/15	10/28	24.90	16.20	...	Op	4	1	2.45	3.51	4.82	
61	Massey-Harris.....RC-20	82 3/4	7 1/4	12 5/8	2560	48	88	18 3/4	11 1/4	119 1/2	81 1/2	76	RT	.....	.....	4.00/15	9/32	24.90	16.20	...	Op	4	1	2.57	3.69	4.85	
62	Massey-Harris.....Std.-30	79 1/8	10 1/2	9 1/2	3960	52 1/8	52 1/8	11 1/2	7 5/8	125 3/8	64 1/8	71 3/8	RT	.....	.....	5.00/15	11/28	28.00	20.00	...	Op	5	1	2.19	3.06	3.82	
63	Massey-Harris.....RC-30	83	8 1/2	13 5/8	3770	52	88	11 1/2	11 3/4	128	79	74 1/4	RT	.....	.....	5.00/15	10/38	28.00	20.00	...	Op	5	1	2.58	3.61	4.51	
64	Massey-Harris.....Std.-44	79 1/2	11	12	4500	54 1/8	54 1/8	11 1/2	10 5/8	127 1/8	68 1/8	77 1/2	RT	.....	.....	6.00/16	13/30	36.00	27.00	...	Op	5	1	2.21	3.33	4.43	
65	Massey-Harris.....RC-44	89 1/4	9	16 1/4	4165	52	88	11 1/2	14 1/8	135 1/4	79	80	RT	.....	.....	5.50/16	12/38	36.00	27.00	...	Op	5	1	2.48	3.75	4.97	
66	Massey-Harris.....44-6	89 1/4	9	16 1/4	4120	52	88	11 1/2	14 1/8	135 1/4	79	80	RT	.....	.....	5.50/16	12/38	36.00	27.00	...	Op	5	1	2.76	3.85	4.81	
67	Massey-Harris.....55	89 1/2	12	12 1/2	7150	57	57	18 3/8	16 3/4	141 1/2	72 1/2	78	RT	.....	.....	7.50/18	14/34	49.00	36.00	...	Op	4	1	2.96	4.22	5.21	
68	M-M(3).....Standard-R	69	9	9 1/2	2970	52	84 (a)	18	15 1/2	109 1/2	82(d)	61 1/2 *	RT	.....	.....	5.00/15	9/36	20.49	15.58	NT	Op	4	1	2.40	3.40	4.30	
69	M-M.....Universal-R	76	7 1/2	22	2950	52	84 (b)	18	15 1/2	117	82	61 1/4 *	RT	.....	.....	5.00/15	9/36	20.49	15.58	341	Op	4	1	2.40	3.40	4.30	
70	M-M.....Industrial-R	66 1/2	12	12 1/2	3690	46 (c)	.....	N	16 1/4	104	58	63 1/2	RT	.....	.....	7.50/16	12.00/24	22.00	17.00	NT	Op	4	1	2.20	3.20	4.19	
71	M-M.....Universal-RN	76 3/4	7 1/2	22	2950	52	84	16	15 1/2	118	82	61 1/4 *	RT	.....	.....	6.00/12	9/36	20.49	15.58	NT	Op	5	1	2.40	3.40	4.30	
72	M-M.....Standard-Z	72 1/4	9	11 1/2	3500	48	.....(e)	10	14 1/2	122	58 1/2	98	Op	25x4 1/2	50x8	5.50/16	10/38	27.95	20.98	NT	Op	5	1	2.30	2.80	3.70	
73	M-M.....Universal-Z	82	8	25	3700	54	84 (f)	10	14 1/2	128 1/4	81	88	Op	25x4 1/2	50x8	5.50/16	10/38	27.95	20.98	352	Op	5	1	2.30	2.80	3.70	
74	M-M.....Universal-ZN	82 3/4	8	25	3700	54	84	10	14 1/2	125	81	88	Op	24x8	50x8	7.50/10	10/38	27.95	20.98	NT	Op	5	1	2.30	2.80	3.70	
75	M-M.....Universal-U	88	8 1/2	24	5200	54	83 (i)	14 3/8	17 1/2	141 1/2	84 1/2	91 1/2	Op	24x5	50x10	6.00/16	12/38	38.48	28.32	319	Op	5	1	2.70	3.80	4.48	
76	M-M.....Standard-U	81	12	24	5200	54	.....(j)	14 3/8	17 1/2	137	72 1/2	91 1/2	Op	28x5	50x10	6.00/16	12/38	38.12	30.86	310	Op	5	1	2.70	3.80	4.48	
77	M-M.....Industrial-U	79 1/2	16	18	7300	54 1/2	.....(k)	N	20	128 ▲	76	71 1/2 *	RT	.....	.....	8.25/20	12.00/28	38.48	28.32	NT	..	5	1	2.30	3.20	3.70	
78	M-M.....Standard-GTA	84	13 1/4	12	8450	60	.....(l)	19	19	136 1/2	76	92	Op	34x5 1/4	50x12	7.50/18	15/30	48.93	36.27	317	Op	4	1	2.70	3.80	4.98	

(For abbreviations see pages 138 and 139)

TRACTORS



OF WHEEL TYPE

Travel Speeds at Normal Governed Engine R.P.M. with Standard Wheels				ENGINE							FUEL										BELT PULLEY			CAPACITIES								
Fourth	Fifth	Sixth	Reverse	Make and Model	Number of Cylinders—Bore and Stroke (In.)	Piston Displacement (Cu. In.)	R.P.M. at Governed Speed	Valve Arrangement	Number of Main Bearings	Diameter of Main Bearings	Standard	Optional	Ignition—Make	Carburetor or Injector Pump—Make	Air Cleaner—Make	Governor—Make	Oiling System—Type	Cooling System—Type	Clutch—Make and Type	Final Drive—Type	Diameter (In.)	Face (In.)	Normal R.P.M.	Steering Type	Cooling System (Gal.)	Fuel Tank (Gal.)	Crankcase (Qts.)	Transmission (Qts.)	Final Drive Case (Qts.)	Starting Method	Line Number
.....	.....	.....	3.80	Own....1B	4-3⅛x3½	125	1400	I	3	2¼	G	....	FM	Zen	Don	Own	P	Pu	Roc...SP	SG	8	5½	1054	FK	2	13	4	7	4+	Ele	1
.....	.....	.....	3.00	Own.....B	4-3⅛x3½	125	1400	I	3	2¼	G,D	....	FM	Zen	Don	Own	P	Pu	Roc...SP	SG	8	5½	1064	FK	2	13	4	6	††¼	Ele	2
.....	.....	.....	2.70	Own.....C	4-3⅛x3½	125	1500	I	3	2¼	G,D	....	FM	Zen	Don	Own	P	Pu	Roc...SP	SG	8	5½	1129	SA	2	13	4	6	††¼	Ele	3
9.80	.....	.....	2.20	Own.....W	4-4x4	201	1300	I	3	2.47	G,D	....	FM	Zen	Uni	Own	P	Pu	Roc...SP	SG	9	6½	1170	SA	3½	15	6	4	††¾	Ele	4
9.80	.....	.....	2.20	Own.....W	4-4x4	201	1300	I	3	2.47	G,D	....	FM	Zen	Uni	Own	P	Pu	Roc...SP	SG	9	6½	1170	FK	3½	15	6	4	††¾	Ele	5
.....	.....	.....	2.25	Herc. IXB-3	4-3¼x4	133	1450	L	3	2	G	....	DR	Til	Vor	Han	P	TS	Roc...SP	SG	8½	6½	1035	..	2¾	12	5	10	1½	HE	6
.....	.....	.....	3.16	Herc...ZXB	4-2½x3	65	1800	L	3	2	G	....	DR	Til	Vor	Han	P	TS	Roc...SP	SG	6	5½	1990	SA	1½	7	4	5	1½	HE	7
18.00	.....	.....	3.50	Own....VA	4-3¼x3¾	124	1425	I	3	2¼	G,D	G,D	Own	Mar	Vor	.....	P	Pu	.....SP	SG	10¼	6	969	FK	3¼	10	4	28	+8	HE	8
9.75	.....	.....	3.33	Own....VA	4-3¼x4	124	1425	I	3	2¼	G,D	G,D	Own	Mar	Vor	.....	P	Pu	.....SP	SG	10¼	6	969	SA	3¼	10	4	28	+8	HE	9
12.00	.....	.....	3.41	Own....VA	4-3¼x3¾	124	1425	I	3	2¼	G	D	Own	Mar	Vor	.....	P	Pu	.....SP	SG	10¼	6	969	FK	3¼	10	4	28	+8	HE	10
13.88	.....	.....	3.83	Own....VA	4-3½x3¾	124	1800	I	3	2¼	G	....	Own	Mar	Vor	.....	P	Pu	.....SP	SG	....	....	....	FK	3½	9¼	4	22	....	Ele	11
10.00	.....	.....	2.75	Own.....S	4-3½x4	154	1550	I	3	2½	G,D	G,D	Own	Zen	Uni	Own	P	Pu	TD...DO	CH	9¼	6¼	1078	FK	4	15½	5	36	....	HE	12
10.00	.....	.....	2.75	Own.....S	4-3½x4	154	1550	I	3	2½	G,D	G,D	Own	Zen	Uni	Own	P	Pu	TD...DO	CH	9¼	6¼	1078	SA	4	15½	5	36	....	HE	13
10.03	.....	.....	2.62	Own.....S	4-3½x4	154	1550	I	3	2½	G	D	Own	Zen	Uni	Own	P	Pu	Roc. MD	CH	....	....	....	FK	4	14	5	36	....	HE	14
10.00	.....	.....	2.75	Own.....D	4-3½x5½	259	1200	I	3	2¼	G,D	G,D	Own	Zen	Own	Own	P	Pu	TD...DO	CH	12¼	7¼	818	FK	7½	18	7	40	....	HE	15
10.00	.....	.....	2.75	Own.....D	4-3½x5½	259	1200	I	3	2¼	G,D	G,D	Own	Zen	Own	Own	P	Pu	TD...DO	CH	12¼	7½	818	SA	7½	18	7	40	....	HE	16
11.83	.....	.....	3.39	Own.....D	4-3½x5½	259	1200	I	3	2¼	G	D	Own	Zen	Own	Own	P	Pu	Roc. MD	CH	12¼	7½	818	SA	5¾	19	7	40	....	HE	17
10.00	.....	.....	3.00	Own.....LA	4-4½x6	403	1100	I	3	3	G,D	G,D	Own	Zen	Own	Own	P	Pu	TD...DO	CH	13	8¼	779	FK	15¼	31	12	68	....	HE	18
8.30	.....	.....	2.40	Own.....LA	4-4½x6	403	1100	I	3	3	G	D	Own	Zen	Own	Own	P	Pu	..... MD	CH	13	8¼	779	FK	15¼	31	12	68	....	HE	19
.....	.....	.....	2.69	Own....9N	4-3⅛x3¾	120	1400	L	...	.....	G	K	Own	MSH	UDO	Novi	P	Pu	Lg....SP	SG	9	6½	1352	FK	3½	10	6	...	...	Ele	20
9.62	.....	.....	2.75	Own.....	4-3x4	113	1400	Oh	3	2¼	G	K,D	Own	MS-Z	Don	Own	P	TS	RA...SP	SG	8¼	6	1157	FK	3¼	11	5	4½	††½	HE	21
12.75	.....	.....	3.62	Own.....	4-3x4	113	1400	Oh	3	2¼	G	K,D	Own	MS-Z	Don	Own	P	TS	RA...SP	SG	8½	6	1157	FK	3½	11	5	5	††½	HE	22
9.62	.....	.....	2.75	Own.....	4-3x4	113	1400	Oh	3	2¼	G	K,D	Own	MS-Z	Don	Own	P	TS	RA...SP	SG	8½	6	1157	SA	3¼	11	5	5	††½	HE	23
9.62	.....	.....	2.75	Own.....	4-3x4	113	1400	Oh	3	2¼	G	K,D	Own	MS-Z	Don	Own	P	TS	RA...SP	SG	8½	6	1157	SA	3¼	11	5	5	††½	HE	24
5.37	15.62	.....	3.00	Own.....	4-3½x4½	152	1650	Oh	3	2½	D,G	G,K	Own	Own	Don	Own	P	Pu	Roc...SP	SG	9¾	7½	1019	SA	4½	17½	6	24	....	HE	25
5.00	15.25	.....	2.87	Own.....	4-3½x4½	152	1650	Oh	3	2½	D,G	G,K	Own	Own	Don	Own	P	Pu	Roc...SP	CH	9¾	7½	1019	FK	4¼	17½	6	24	††3	HE	26
5.12	16.25	.....	3.12	Own.....	4-3½x5½	248	1450	Oh	3	2¾	D,G	G,K	Own	Own	Don	Own	P	Pu	Roc...SP	SG	11	7½	899	SA	6	21	8	52	..	HE	27
5.00	16.00	.....	3.12	Own.....	4-3½x5½	248	1450	Oh	3	2¾	D,G	G,K	Own	Own	Don	Own	P	Pu	Roc...SP	CH	11	7½	899	FK	6	21	8	52	††3	HE	28
5.12	16.25	.....	3.12	Own.....	4-3½x5½	248	1450	Oh	5	3¾	O	....	.....	Own	Don	Own	P	Pu	Roc...SP	SG	11	7½	899	SA	6¾	21	9	52	....	HE	29
5.00	16.00	.....	3.12	Own.....	4-3½x5½	248	1450	Oh	5	3¾	O	....	.....	Own	Don	Own	P	Pu	Roc...SP	CH	11	7½	899	FK	6¾	21	9	52	††3	HE	30
5.00	14.00	.....	2.75	Own.....	4-3½x4½	152	1650	Oh	3	2½	D,G	G,K	Own	Own	Don	Own	P	Pu	Roc...SP	SG	9¾	7½	1019	FK	4¼	17½	6	24	....	HE	31
4.87	15.37	.....	2.62	Own.....	4-3½x5½	248	1450	Oh	3	2¾	D,G	G,K	Own	Own	Don	Own	P	Pu	Roc...SP	SG	11	7½	899	FK	6¼	21	8	52	....	HE	32
4.87	15.37	.....	2.62	Own.....	4-3½x5½	248	1450	Oh	5	3¾	O	....	.....	Own	Don	Own	P	Pu	Roc...SP	SG	11	7½	899	FK	6¾	21	9	52	....	HE	33
5.12	15.50	.....	2.75	Own.....	4-4.4x5.5	335	1500	Oh	3	3¼	D,K,G	G	Own	Own	Don	Own	P	Pu	Own...SP	SG	14	8½	707	FK	10	36	11	40	....	HE	34
6.00	16.87	.....	3.12	Own.....	4-4.4x5.5	335	1500	Oh	3	3¼	D,K,G	G	Own	Own	Don	Own	P	Pu	Roc...SP	SG	14	8½	707	FK	10	36	11	40	....	HE	35
5.12	15.50	.....	2.75	Own.....	4-4.4x5.5	335	1500	Oh	5	4½	O	....	.....	Own	Don	Own	P	Pu	Own...SP	SG	14	8½	707	FK	11	36	11	40	....	HE	36
6.00	16.87	.....	3.12	Own.....	4-4.4x5.5	335	1500	Oh	5	4½	O	....	.....	Own	Don	Own	P	Pu	Roc...SP	SG	14	8½	707	FK	11	36	11	40	....	HE	37
4.87	14.00	.....	1.62	Own.....	4-3½x4½	152	1650	Oh	3	2½	D,G	G,K	Own	Own	Don	Own	P	Pu	Roc...SP	SG	9¾	7½	1019	FK	4¼	17½	6	24	....	HE	38
4.87	14.00	.....	1.62	Own.....	4-3½x4½	152	1650	Oh	3	2½	D,G	G,K	Own	Own	Don	Own	P	Pu	Roc...SP	SG	9¾	7½	1019	FK	4¼	17½	6	24	....	HE	39
4.75	14.00	.....	1.75	Own.....	4-3½x5½	248	1450	Oh	3	2¾	D,G	G,K	Own	Own	Don	Own	P	Pu	Roc...SP	SG	11	7½	899	FK	6¼	21	8	52	....	HE	40
4.75	14.00	.....	1.75	Own.....	4-3½x5½	248	1450	Oh	3	2¾	D,G	G,K	Own	Own	Don	Own	P	Pu	Roc...SP	SG	11	7½	899	FK	6¼	21	8	52	....	HE	41
4.75	14.00	.....	1.75	Own.....	4-3½x5½	248	1450	Oh	5	3¾	O	....	.....	Own	Don	Own	P	Pu	Roc...SP	SG	11	7½	899	FK	6¾	21	9	52	....	HE	42
9.30	.....	.....	2.70	Own.....	4-3x4	113	1400	Oh	3	2⅛	G	K,D	Own	MS-Z	Don	Own	P	TS	RA...SP	SG	8½	6	1157	FK	3¼	11	5	5	††1	HE	43
7.40	15.80	.....	3.00	Own....I-4	4-3½x4½	152	1650	I	3	2¼	G	K,D	Own	Own	Don	Own	P	Pu	Roc...SP	SG	9¾	7½	1019	FK	4½	17½	6	24	**	HE	44
7.40	14.30	.....	2.60	Own....I-6	4-3½x5½	248	1450	I	3	2¾	G	K,D	Own	Own	Don	Own	P	Pu	Roc...SP	SG	11	7½	899	FK	6¼	21	8	52	**	HE	45
7.40	14.30	.....	2.60	Own...ID-6	4-3½x5½	248	1450	I	5	3¾	O	....	.....	Own	Don	Own	P	Pu	Roc...SP	SG	11	7½	899	FK	6¾	21	9	52	**	HE	46
7.30	15.20	.....	2.80	Own....I-9	4-4½x5½	312	1500	I	3	3½	G	K,D	Own	Own	Don	Own	P	Pu	Own...SP	SG	14	8½	707	FK	10	36	11	40	**	HE	47
7.30	15.20	.....	2.80	Own...ID-9	4-4½x5½	312	1500	I	5	4½	O	....	Own	Own	Don	Own	P	Pu	Own...SP	SG	14	8½	707	FK	11	36	11	40	**	HE	48
.....	.....	.....	2.50	Own.....L	2-3¼x4	66	1550	I	2	2	G	G	Wico	Mar	Uni	Own	P	TS	The...SP	SG	6¾	6¼	1480	FK	2½	...	3	4	....	Ele	49
.....	.....	.....	2.50	Own....LA	2-3½x4	77	1850	I	2	2	G	G	E-A	Mar	Uni	Own	P	TS	The...SP	SG	6¾	6¼	1770	FK	2½	...	3	4	....	Ele	50
5.75	.....	.....	1.75	Own.....H	2-3⅛x5	100	1400	I	2	2¼	G	D,K	Wico	Mar	Don	Own	P	TS	Own...SP	SG	12¼	4½	700	FK	5½	7½	4½	11	....	Ele	51
4.25	5.80	7.33	12.50	4.00	Own.....B	2-4½x5½	175	1150	I	2	2¼	G	D,K	Wico	Mar	Don	Own	P	TS	Own...SP	SG	10¼	6¼	1150	FK	6¼	12	7½	18	....	Ele	52
4.25	5.75	.....	.....	3.33	Own....BO	2-4½x5½	175	1150	I	2	2¼	G	G,K	Wico	Mar	Don	Own	P	TS	Own...SP	SG	10½	5½	1150	FK	6	12	7½	18	....	Ele	53
4.25	5.75	.....	.....	3.33	Own....BR	2-4½x5½	175	1150	I	2	2¼	G	D,K	Wico	Mar	Don	Own	P	TS	Own...SP	SG	10¼	5½	1150	FK	6	12	7½	18	....	Ele	54
4.25	5.80	7.33	12.66	4.00	Own.....A	2-5½x6½	321	975	I	2	2¾	G	D,K	Wico	Mar	Uni	Own	P	TS	Own...SP	SG	12¼	7¼	975	FK	9¼	15	9½	32	....	Ele	55
4.00	5.50	.....	.....	3.25	Own....AR	2-5½x6½	321	975	I	2	2¾	G	D,K	Wico	Mar	Ver	Own	P	TS	Own...SP	SG	12¼	7¼	975	FK	8	16	9½	32	....	Ele	56
4.00	5.50	.....	.....	3.25	Own....AO	2-5½x6½	321	975	I	2	2¾	G	D,K	Wico	Mar	Uni	Own	P	TS	Own...SP	SG	12¼	7¼	975	FK	8	16	9½	32	....	Ele	57
4.50	6.33	8.50	12.00	3.25	Own....GM	2-6½x7	412	975	I	2	3	G	D,K	Wico	Mar	Don	Own	P	TS	Own...SP	SG	12¼	8½	975	FK	13	17	...	...	...	Ele	58
4.66	.....	.....	.....	1.75	Own.....D	2-6½x7	501	900	I	2	3	G	D,K	E-A	Mar	Don	Own	P	TS	Own...SP	SG	13¼	8½	900	FK	14	23½	13	28	..	Ele	59
13.02	.....	.....	2.45	Cont.....	4-3x4⅝	124	1500	L	3	2¼	G	D	AL	Mar	Don	Novi	P	Pu	BB....SP	SG	9½	6	1224	FK	2¾	12	4	8	16+	Ele	60
13.88	.....	.....	2.57	Cont.....	4-3x4⅝	124	1500	L	3	2¼	G	D	AL	Mar	Don	Novi	P	Pu	BB....SP	SG	9½	6	1224	SA	2¾	12	4	8	16+	Ele	61
5.35	10.71	.....	.....	2.48	Cont...F162	4-3⅛x4⅝	162	1500	L	3	2¼	G	D	AL	Mar	Don	Novi	P	Pu	BB....SP	SG	13½	6	838	FK	....	20	5	24	**	Ele	62
6.31	12.63	.....	.....	2.93	Cont...F162	4-3⅛x4⅝	162	1500	L	3	2¼	G	D	AL	Mar	Don	Novi	P	Pu	BB....SP	SG	13½	6	838	SA	....	20	5	24	**	Ele	63
5.75	12.28	.....	.....	2.89	Own...H280	4-3⅞x5½	260	1350	Oh	3	2⅞	G	D	AL	Zen	Don	Own	P	Pu	BB....SP	SG	13½	6	863	FK	5¾	20	9	24	**	Ele	64
6.46	13.82	.....	.....	3.26	Own...H260	4-3⅞x5½	260	1350	Oh	3	2⅞	G	D	AL	Zen	Don	Own	P	Pu	BB....SP	SG	13½	6	863	SA	5¾	25	9	24	**	Ele	65
6.74	13.48	.....	.....	3.12	Cont...F226	6-3⅛x4⅝	226	1500	L	4	2⅝	G	....	AL	Mar	Don	Novi	P	Pu	BB....SP	SG	13½	6	838	SA	4	25	6	24	**	Ele	66
12.07	.....	.....	.....	2.54	Own...J382	4-4½x6	382	1350	Oh	3	3¼	G	D	AL	Zen	Don	Own	P	Pu	BB....SP	SG	16	8	730	FK	6½	27	11	17½	**	Ele	67
12.30	.....	.....	2.70	Own.....EE	4-3½x4	165	1400	Ih	2	3(h)	G	D	FM	Mar	Uni	Own	P	Pu	TD....SP	SG	12¼	6	933	FK	3½	14	7	18	**	HE	68
12.30	.....	.....	2.70	Own.....EE	4-3½x4	165	1400	Ih	2	3(h)	G	D	FM	Mar	Uni	Own	P	Pu	TD....SP	SG	12¼	6	933	SA	3½	14	7	18	**	Ele	69
11.50	.....	.....	2.50	Own.....EE	4-3½x4	165	1500	Ih	2	3(h)	G	D	FM	Mar	Uni	Own	P	Pu	Roc...SP	SG	12¼	6	1000	FK	3½	14	7	18	**	HE	70
12.30	.....	.....	2.70	Own.....EE	4-3½x4	165	1400	Ih	2	3(h)	G	D	FM	Mar	Uni	Own	P	Pu	TD....SP	SG	12¼	6	933	SA	3½	14	7	18	**	HE	71
3.70	4.80	15.00	.....	1.10	Own.....RE	4-3½x4½	185	1500	Ih	2	Ba	G	D	FM	Mar	Uni	Own	P	Pu	TD....SP	SG	14	7	786	FK	3½	16¾	7	28	**	HE	72
3.70	4.80	15.00	.....	1.10	Own.....RE	4-3½x4½	185	1500	Ih	2	Ba	G	D	FM	Mar	Uni	Own	P	Pu	TD....SP	SG	14	7	786	SA	3½	16¾	7	28	**	HE	73
3.70	4.80	15.00	.....	1.10	Own.....RE	4-3½x4½	185	1500	Ih	2	Ba	G	D	FM	Mar	Uni	Own	P	Pu	TD....SP	SG	14	7	786	SA	3½	16¾	7	28	**	HE	74
4.49	6.40	14.80	.....	2.10	Own...KEF	4-4¼x5	284	1275	I	3	2⅝	G	D	FM	Mar	Uni	Own	P	Pu	TD....SP	SG	15½	7	727	SA	6	21½	9	52	**	HE	75
4.49	6.40	14.80	.....	2.10	Own...KEF	4-4¼x5	284	1275	I	3	2⅝	G	D	FM	Mar	Uni	Own	P	Pu	TD....SP	SG	15½	7	727	FK	6	21½	9	52	**	HE	76
3.70	5.40	12.50	.....	1.80	Own...KEF	4-4¼x5	284	1300	I	3	2⅝	G	D	FM	Mar	Uni	Own	P	Pu	Roc...SP	SG	15½	7	741	FK	6	21½	9	52	**	HE	77
4.98	9.00	.....	.....	2.80	Own.....LE	4-4½x6	403	1075	I	3	2⅝	G	D	FM	Mar	Don	Own	P	Pu	TD...SP	SG	16	7½	650	FK	7	30	9	52	**	HE	78

(For abbreviations see pages 138 and 139)

Line Number	TRACTOR MAKE AND MODEL	GENERAL: Wheelbase (In.)	GENERAL: Minimum Turning Radius—Outside (Ft.)	GENERAL: Ground Clearance (In.)	GENERAL: Shipping Weight with Rubber Tires (Lb.)	GENERAL: Tread (In.) Minimum	GENERAL: Tread (In.) Maximum	DRAW-BAR: Lateral Adjustment (In.)	DRAW-BAR: Height Above Ground (In.)	OVERALL DIMENSIONS: Length (In.)	OVERALL DIMENSIONS: Width (In.)	OVERALL DIMENSIONS: Height—To Highest Point (In.)	WHEELS: Standard Equipment	WHEELS: STEEL Diam. and Face: Front (In.)	WHEELS: STEEL Diam. and Face: Rear (In.)	WHEELS: TIRE SIZE: Front (In.)	WHEELS: TIRE SIZE: Rear (In.)	HP. RATING: Belt	HP. RATING: Drawbar	Nebraska Test Number	Power Take-off	Number of Forward Speeds	Number of Reverse Speeds	Travel Speeds at Normal Governed Engine R.P.M. (M.P.H.) with Standard Wheels: First	Second	Third
1	Oliver-Rowcrop.....60HC	85⅞	7½	15⅛	2200	60	72	20⅝	15	131⅛	79¼	83	SW	23x4½	43x½	5.00/15	9/32	18.76	16.92	375	Op	5	1	2.58	3.45	4.57
2	Oliver-Rowcrop.....60KD	85⅞	7½	15⅛	2200	60	72	20⅝	15	131⅛	79¼	83	SW	23x4½	46x¼	5.00/15	9/32	.....	.....	NT	Op	5	1	2.58	3.45	4.57
3	Oliver-Standard.....60HC	66	10	11½	2100	48	48	14¾	15	121¾	56	76	RT	25x4	38x8	5.00/15	10/24	.....	.....	NT	Op	5	1	2.60	3.48	4.61
4	Oliver-Standard.....60KD	66	10	11½	2100	48	48	14¾	15	121¾	56	76	RT	25x4	38x8	5.00/15	10/24	.....	.....	NT	Op	5	1	2.60	3.48	4.61
5	Oliver-Rowcrop.....70HC	91¼	8	17½	3300	60	72	20⅝	15	136	80½	83⅞	SW	24x4½	55x[tt]	5.50/16	11/38	31.52	28.63	351	Op	6	1	2.52	3.44	4.48
6	Oliver-Rowcrop.....70KD	91¼	8	17½	3300	60	72	20⅝	15	136	80½	83⅞	SW	24x4½	55x[tt]	5.50/16	11/38	27.15	20.48	287	Op	6	1	2.52	3.44	4.48
7	Oliver-Standard.....70HC	72	11½	11¾	3150	48	48	21⅜	15	135	61½	77⅛	SW	27x4½	42x10	5.50/16	11/24	27.79	19.84	283	Op	6	1	2.44	3.32	4.33
8	Oliver-Standard.....70KD	72	11½	11¾	3150	48	48	21⅜	15	135	61½	77⅛	SW	27x4½	42x10	5.50/16	11/24	26.75	19.83	284	Op	6	1	2.44	3.32	4.33
9	Oliver-Rowcrop.....80HC	93[tt]	8½	17½	4775	60	72	21¼	15	142¾	80	82	SW	24x4½	59½x-½	6.00/16	13/40	.....	.....	NT	Op	4	1	2.52	3.35	4.33
10	Oliver-Rowcrop.....80KD	93[tt]	8½	17½	4775	60	72	21¼	15	142¾	80	82	SW	24x4½	59½x-½	6.00/16	13/40	38.78	29.92	300	Op	4	1	2.52	3.35	4.33
11	Olliver-Standard.....80HC	72½	12½	10	4600	48	50	18⅞	15	124	61½	74⅜	SW	28x5	44x10	6.00/16	13/28	41.27	35.91	365	Op	4	1	2.42	3.23	4.17
12	Oliver-Standard.....80KD	72½	12½	10	4600	48	50	18⅞	15	124	61½	74⅜	SW	28x5	44x10	6.00/16	13/24	39.32	28.55	301	Op	4	1	2.42	3.23	4.17
13	Oliver.....90	80	14	10½	6200	52	52	18½	15	132¾	65	80¼	SW	29x6	46x12	7.50/18	14/30	49.04	34.21	183	Op	4	1	2.23	3.32	4.32
14	Oliver.....99	80	14	10½	6400	52	52	18½	15	132¾	65	80¼	SW	29x6	46x12	7.50/18	14/30	.....	.....	NT	Op	4	1	2.23	3.32	4.32
15	Oliver.....60 Ind.	66	10	10½	2060	49	49	14¾	15	111	60	76	RT	.....	.....	5.00/15	9/24	19.50	17.50	...	Op	5	2	2.60	3.48	4.61
16	Oliver.....70 Ind.	72	11½	12½	3500	52¼	52¼	21⅜	15	115	62	59¾	RT	.....	.....	6.00/16	12.00/24	33.00	30.00	...	Op	6	1	2.52	3.42	4.47
17	Oliver.....80 Ind.	72½	12½	10¾	4600	54¼	54¼	16⅜	15	122	65½	80⅛	RT	.....	.....	7.50/16	13.00/24	42.00	38.50	...	Op	4	1	2.47	4.26	5.74
18	Oliver.....99 Ind.	80	14	12	7485	53¼	53¼	23½	15½	132	68	83⅝	RT	.....	.....	7.50/18	14.00/28	63.00	.....	...	Op	4	1	2.62	5.06	8.38
19	Oliver.....900 Ind.	92⅛	15	12½	10400	49¼	82¼	30	15[tt]	145	98	87	RT	.....	.....	7.00/20	14.00/32	63.00	50.00	...	...	4	1	2.82	5.48	9.03
20	Silverking (2).....347	83¾	7	29	3350	56	84	27	15	131	72½	78	RT	.....	.....	7.50/16	10.00/38	34.60	22.50	NT	Op	4	1	2.67	4.10	5.93
21	Silverking.....447	66[tt]	9	16½	3000	44	72	27	15	113¾	67½	73	RT	.....	.....	6.50/16	10.00/28	34.60	21.40	NT	Op	4	1	3.25	5.18	7.20

ABBREVIATIONS:

**—Included in transmission
†—Clearance at rear axle
‡—Rated using gasoline
*—Rated using distillate
‡—Clearance at front axle
•—64 to 85 (In.)
•—To top of steering wheel
▲—To top of hood
▲—5 with rubber tires
††—Capacity final drive—Each case
†—Total capacity final drive cases
♦—On gasoline with high compression engine, tractor equipped with pneumatic tires
(1)—Deere & Co.
(2)—Fate-Root-Heath Co.
(3)—Minneapolis Moline Power Implement Co.
(a)—Front tread: 47½-54½
AL—Auto Lite
(b)—Front tread: 7½-14
Ba—Ball bearing
BB—Borg & Beck Div.
Bos—American Bosch Corp.
(c)—Front tread: 48" Minimum
CH—Chain
Cont—Continental Motors
(d)—Overall dimensions—Front 56½"
D—Distillate
DO—Double plate operating in oil
DR—Delco-Remy Div.
Don—Donaldson
(e)—Front tread: 47½-53½
E-A—Edison Splitdorf or Auto-Lite
Ele—Electric starting
F—Front wheel tread
(f)—Front tread: 7-14½
FK—Front axle knuckle
FM—Fairbanks Morse
FO—Fork type
G—Gasoline
(h)—3" Rear; Front S.A.E. 212 Roller
Han—Handy Governor Corp.
HC—Hand crank
HE—Hand or Electric
Herc—Hercules Motors Corp.

CURRENT MODELS OF

Line Number	TRACTOR MAKE AND MODEL	GENERAL: Minimum Turning Radius—Outside (Ft.) (Minimum Tread)	GENERAL: Ground Clearance (In.)	GENERAL: Shipping Weight (Lb.) Standard Shoe (Minimum Tread)	GENERAL: Tread Minimum (In.)	GENERAL: Tread Maximum (In.)	DRAW-BAR: Lateral Adjustment—At Pin (In.)	DRAW-BAR: Height Above Ground (In.)	OVERALL DIMENSIONS: Length (In.)	OVERALL DIMENSIONS: Width—Maximum (In.) (Minimum Tread)	OVERALL DIMENSIONS: Height to Highest Point (In.)	TRACK: Width of Shoe—Standard (In.)	TRACK: Length on Ground (In.)	HP. RATING: Belt	HP. RATING: Drawbar	Power Take-off	No. of Forward Speeds	No. of Reverse Speeds	MAXIMUM DRAWBAR PULL AT NORMAL GOVERNED ENGINE R.P.M.: First Gear (Lb.)	Second Gear (Lb.)	Third Gear (Lb.)	Fourth Gear (Lb.)	Fifth Gear (Lb.)	Sixth Gear (Lb.)	Travel Speeds at Normal Governed Engine R.P.M.: First Gear (M.P.H.)	Second Gear (M.P.H.)	Third Gear (M.P.H.)	Fourth Gear (M.P.H.)
1	Allis-Chalmers.....HD-5	6½	11¼	11250	44	60	21	13[tt]	125[tt]	78	60⅝♦	13	64¼	45.10	37.40	Op	5	1	10000	5750	4150	3350	2250	.....	1.46	2.44	3.30	3.96
2	Allis-Chalmers.....HD-7	7½	10⅝	13522	52	63	19½	10¾	128	70	69½♦	16	67	71.08	60.10	Op	4	1	13300	9450	6750	3500	.....	.....	1.59	2.19	2.97	5.09
3	Allis-Chalmers.....HD-10	8½	11⅝	21400	62	74	32	14⅝	150	82¼	77⅝♦	18	84[tt]	101.62	86.63	Op	6	2	19830	14800	11100	8060	5850	4100	1.57	2.06	2.68	3.54
4	Allis-Chalmers.....HD-14	9½	13½	28880	68	68	30	15⅝	165	91¾	80♦	22	85[tt]	150.48	132.19	Op	6	2	28019	22699	17265	13769	10074	5579	1.72	2.18	2.76	3.88
5	Caterpillar.....Diesel-D2	5½	9	6710	40	50	20	12	107⅝	55¾	57⅜	12	54½	31.99	25.86	Op	5	1	5903	3798	3069	2485	1585	.....	1.70	2.50	3.00	3.66
6	Caterpillar.....Diesel-D4	6½	11½	10195	44	60	21	14¼	120[tt]	62	60⅝	13	61½	41.17	35.68	Op	5	1	7852	5811	4541	3471	2230	.....	1.70	2.40	3.00	3.70
7	Caterpillar.....Diesel-D6	8½	12½	16630	60	74	27¾	14	149[tt]	80½	75¼	16	85⅝	65.00	55.00	Op	5	4	14300	9100	6200	4000	2650	.....	1.40	2.30	3.20	4.48
8	Caterpillar.....Diesel-D7	8[tt]½	15½	24330	74	74	36	17¼	152¼	97	80	20	93¼	92.84	80.44	Op	5	4	21351	13454	9090	5994	4550	.....	1.40	2.20	3.20	4.89
9	Caterpillar.....Diesel-D8	9½	10½	34160	78	78	43	17½	183	103¾	90	22	97⅝	131.00	113.14	Op	6	2	26208	19537	15973	13707	11266	7995	1.60	2.20	2.60	3.00
10	I.H.C. (1)...TracTracTor-T-6	5½	8¾	6750	40	50	19¾	12¼	104	53	62¼	12	58⅝	38.96	32.92	Op	5	1	7652	5215	3579	2767	1756	.....	1.50	2.20	3.10	3.80
11	I.H.C.....TracTracTor-TD-6	5½	8¾	7010	40	50	19¾	12¼	104	53	62¼	12	58⅝	36.23	29.49	Op	5	1	7160	4929	3368	2641	1661	.....	1.50	2.20	3.10	3.80
12	I.H.C.....TracTracTor-T-9	6	10⅛	9300	44	60	19½	13¾	114	59⅛	66⅜	13	63[tt]	48.69	42.98	Op	5	1	9868	6904	4556	3650	2434	.....	1.50	2.20	3.00	3.90
13	I.H.C.....TracTracTor-TD-9	6	10⅛	9525	44	60	19½	13¾	114	59⅛	66⅜	13	63[tt]	45.91	38.88	Op	5	1	9014	6637	4368	3551	2304	.....	1.50	2.20	3.00	3.90
14	I.H.C.....TracTracTor-TD-14	7½	11¾	15550	56	74	27	13¾	134½	74⅛	73¾	16	78⅝	64.02	54.04	Op	6	2	13426	9645	7919	5683	3824	2925	1.50	2.10	2.50	3.40
15	I.H.C.....TracTracTor-TD-18	8½	14¼	22250	62	74	31	15½	158¼	82¼	79	18	84⅝	84.66	72.38	Op	6	2	18973	13357	10561	7827	5157	3833	1.50	2.00	2.50	3.30
16	Oliver.....“CleTrac”-HG	7½	20½	3065	42	68	22	15½	105⅝	78¼	52½	6	50	22.00	18.00	Op	3	1	3060	2170	1080	.....	.....	.....	2.02	3.19	5.25	....
17	Oliver.....“CleTrac”-AG-6	7½	13½	7120	42	50	15	14⅝	111½	65¼	64	12	62	38.80	30.60	Op	3	1	6020	4160	2640	.....	.....	.....	1.78	2.62	3.74	....
18	Oliver.....“CleTrac”-AD	7½	13½	7750	42	50	15	14⅝	109½	65¼	64	12	62	38.00	30.50	Op	3	1	6500	4520	2800	.....	.....	.....	1.78	2.62	3.74	....
19	Oliver.....“CleTrac”-BGS	8½	15¼	8580	44	52	14⅜	17	117	68⅛	70½	14	63	50.00	38.00	Op	4	2	7600	5700	4200	2000	.....	.....	1.80	2.63	3.44	5.40
20	Oliver.....“CleTrac”-BD	8½	15¼	9275	44	52	14⅜	17	117	68½	70½	14	63	48.09	38.05	Op	4	2	8012	5586	4127	2000	.....	.....	1.80	2.64	3.45	5.41
21	Oliver.....“CleTrac”-DG	9	15¼	12825	48	61	16⅜	17¼	125	80¾	81½	16	74⅜	69.00	61.20	Op	4	2	11000	9350	7000	4156	.....	.....	1.84	2.49	3.31	5.30
22	Oliver.....“CleTrac”-DD	9	15¼	13685	48	61	16⅜	17¼	125	67¾	81½	16	74⅜	67.71	61.19	Op	4	2	11816	10022	7596	4568	.....	.....	1.70	2.30	3.08	4.88
23	Oliver.....“CleTrac”-FDE	14½	19½	29760	69	....	25	25	180	100	109	20	96	146.00	120.15	Op	4	2	28600	16230	11300	7150	.....	.....	1.61	2.75	3.66	5.00

ABBREVIATIONS

*—Electric starter optional
‡—Exclusive of tail pipes
**—Included in transmission
1)—International Harvester Co
Atw—Atwood.
Bos—Bosch
Clu—Clutches
Cont—Continenta
D—Distillate
Dif—Differentia
Don—Donaldson
DP—Double Plate, Dry
DR—Delco-Remy
DU—Donaldson or United Air Cleaner Div.
Ele—Electric
G—Gasoline
GE—Independent Gas Engine
GM—General Motors
Herc—Hercules

TYPE—continued

Travel Speeds at Normal Governed Engine R.P.M. with Standard Wheels				ENGINE								FUEL										BELT PULLEY				CAPACITIES								
Fourth	Fifth	Sixth	Reverse	Make and Model	Number of Cylinders—Bore and Stroke (In.)	Piston Displacement (Cu. In.)	R.P.M. at Governed Speed	Valve Arrangement	Number of Main Bearings	Diameter of Main Bearings	Standard	Optional	Ignition—Make	Carburetor or Injector Pump—Make	Air Cleaner—Make	Governor—Make	Oiling System—Type	Cooling System—Type	Clutch—Make and Type	Final Drive—Type	Diameter (In.)	Face (In.)	Normal R.P.M.	Steering Type	Cooling System (Gal.)	Fuel Tank (Gal.)	Crankcase (Qts.)	Transmission (Qts.)	Final Drive Case (Qts.)	Starting Method	Line Number
6.10	11.56	.....	3.32	Own.....	4-3 1/16x3 1/2	121	1500	I	3	2 1/4	G		DR	Mar	Don	Own	PS	Pu	BB....SP	SG	10	8 1/4	647	SA	2 1/2	10	4	24	**	Ele	1
6.10	11.56	.....	3.32	Own.....	4-3 1/16x3 1/2	121	1500	I	3	2 1/4	DO	G	DR	Mar	Don	Own	PS	Pu	BB....SP	SG	10	8 1/4	647	SA	2 1/2	10	4	24	**	Ele	2
6.16	11.67	.....	3.35	Own.....	4-3 1/16x3 1/2	121	1500	I	3	2 1/4	G		DR	Mar	Don	Own	PS	Pu	BB....SP	SG	10	8 1/4	647	FK	2 1/2	10	4	24	**	Ele	3
6.16	11.67	.....	3.35	Own.....	4-3 1/16x3 1/2	121	1500	I	3	2 1/4	DO	G	DR	Mar	Don	Own	PS	Pu	BB....SP	SG	10	8 1/4	647	FK	2 1/2	10	4	24	**	Ele	4
6.08	7.50	13.25	2.52	Own.....	6-3 1/16x4 1/8	201	1500	I	4	2 1/4	G		Bos	Zen	Don	Own	PS	Pu	BB....SP	SG	12 3/4	7 1/4	774	SA	4 1/2	15	5	26	**	HC	5
6.08	7.50	13.25	2.52	Own.....	6-3 1/16x4 1/8	201	1500	I	4	2 1/4	DO	G	Bos	Zen	Don	Own	PS	Pu	BB....SP	SG	12 3/4	7 1/4	774	SA	4 1/2	15	5	26	**	HC	6
6.08	7.25	12.80	2.44	Own.....	6-3 1/16x4 1/8	201	1500	I	4	2 1/4	G		Bos	Zen	Don	Own	PS	Pu	BB....SP	SG	12 3/4	7 1/4	774	FK	4 1/2	15	5	26	**	HC	7
6.08	7.25	12.80	2.44	Own.....	6-3 1/16x4 1/8	201	1500	I	4	2 1/4	DO	G	Bos	Zen	Don	Own	PS	Pu	BB....SP	SG	12 3/4	7 1/4	774	FK	4 1/2	15	5	26	**	HC	8
5.82	.....	.....	3.08	Own.....	4-4 1/2x5 1/4	298	1200	I	3	2 5/8	G		Bos	Mar	Don	Own	P	Pu	BB....SP	SG	14 1/2	7 1/4	731	SA	8 1/2	17	8	48	**	HC	9
5.82	.....	.....	3.08	Own.....	4-4 1/2x5 1/4	334	1200	I	3	2 5/8	DO	G	Bos	Mar	Don	Own	P	Pu	BB....SP	SG	14 1/2	7 1/4	731	SA	8 1/2	17	8	48	**	HC	10
5.60	.....	.....	2.96	Own.....	4-4 1/2x5 1/4	298	1200	I	3	2 5/8	G		Bos	Mar	Don	Own	P	Pu	BB....SP	SG	14 1/2	7 1/4	731	FK	8 1/2	17	8	48	**	HC	11
5.60	.....	.....	2.96	Own.....	4-4 1/2x5 1/4	334	1200	I	3	2 5/8	DO	G	Bos	Mar	Don	Own	P	Pu	BB....SP	SG	14 1/2	7 1/4	731	FK	8 1/2	17	8	48	**	HC	12
5.55	.....	.....	3.23	Own.....	4-4 3/4x6 1/4	443	1125	I	3	3	DO	G	Bos	Mar	Don	Own	P	Pu	BB....SP	SG	16 3/4	8 1/4	596	FK	10 1/2	34	12	48	**	HC	13
5.55	.....	.....	3.23	Own.....	4-4 3/4x6 1/4	443	1125	I	3	3	G		Bos	Mar	Don	Own	P	Pu	BB....SP	SG	16 3/4	8 1/4	596	FK	10 1/2	34	12	48	**	HC	14
6.16	11.67	.....	3.35	Own.....	4-3 1/16x3 1/2	120	1500	I	3	2 1/4	G		DR	Sch	Don	Own	PS	Pu	BB....SP	SG	10	8 1/4	647	FK	2 1/2	10	4	24	**	Ele	15
6.07	7.48	13.22	2.52	Own.....	6-3 1/16x4 1/8	201	1500	I	4	2 1/4	G		Bos	Zen	Don	Own	PS	Pu	BB....SP	SG	12 3/4	7 1/4	774	FK	4 1/2	15	5	26	**	Ele	16
10.62	.....	.....	3.03	Own.....	4-4 1/2x5 1/4	298	1200	I	3	2 5/8	G		Bos	Sch	Don	Own	P	Pu	Roc...SP	SG	14 1/2	7 1/4	731	FK	8 1/2	17	8	48	**	Ele	17
16.63	.....	.....	3.81	Own.....	4-4 3/4x6 1/4	443	1200	I	3	3	G		Bos	Sch	Don	Own	P	Pu	BB....SP	SG	16 3/4	8 1/4	635	FK	10 1/2	34	12	48	**	Ele	18
17.95	.....	.....	4.11	Own.....	4-4 3/4x6 1/4	443	1200	I	3	3	G		Bos	Sch	Don	Own	P	Pu	Roc...SP	SG	.....	.....	.....	FK	10 1/2	40	12	48	**	Ele	19
19.10	.....	.....	1.97	Cont..F-162	4-3 7/16x4 3/8	162	1800	L	3	2 1/4	G		DR	Mar	Don	Pie	P	Pu	BB....SP	SG	6 11/16	8	1800	FO	3	11 3/4	5	7	**	Ele	20
22.20	.....	.....	2.39	Cont..F-162	4-3 7/16x4 3/8	162	1800	L	3	2 1/4	G		DR	Mar	Don	Pie	P	Pu	BB....SP	SG	6 11/16	8	1800	FK	3	11 3/4	5	7	**	Ele	21

(I)—Front tread: 8 1/2–14
(-—In head (Valves)
(h—Horisontal—In head (Valves)
(]—Front tread: 50 1/2–56 1/2
(k)—Front tread: 56
(K)—Kerosene
(l)—Front tread: 54 1/2
(L—"L" head (Valves)
Lg—Long Mfg. Co.
Mar—Marvel-Schebler Carb. Div.
MD—Multiple disc operating dry
MO—Multiple disc operating in oil
MSH—Marvel-Schebler or Holley
MS-Z—Marvel-Schebler or Zenith
N—No or none
Novi—Novi Equipment Co.
NT—Not tested
O—Diesel fuel
Oh—Overhead
Op—Optional
P—Pressure
Pie—Pierce Governor Co.
Piv—Pivot
PS—Pressure and splash
Pu—Pump
R—Rear wheel tread
RA—Rockford-Atwood
Roc—Rockford Drilling Mach. Div.
RT—Rubber tires
S—Single front wheel
SA—Solid axle
Sch—Marvel-Schebler Carburetor Div.
SG—Spur gear
SP—Single plate, dry
SW—Steel wheels
TD—Twin Disc Clutch Co.
The—Thelander
Til—Tillotson
TS—Thermo-Syphon
Uni—United Air Cleaner Div.
UDO—United, Donaldson or Oakes
Vor—Vortox Mfg. Co.
Zen—Zenith Carburetor Div

TRACK LAYING TYPE

Travel Speeds at Normal Governed Engine R.P.M.				ENGINE									FUEL											BELT PULLEY			CAPACITIES						
Fifth Gear (M.P.H.)	Sixth Gear (M.P.H.)	Low Reverse (M.P.H.)	High Reverse (M.P.H.)	Make and Model	Cycle	No. of Cylinders—Bore and Stroke (In.)	Displacement (Cu. In.)	R.P.M. at Governed Speed	S.A.E. or Tax Hp.	Valve Arrangement	No. of Main Bearings	Diam. Main Bearings (In.)	Standard	Optional	Ignition—Make	Carburetor or Injector Pump—Make	Air Cleaner—Make	Governor—Make	Oiling System—Type	Cooling System—Type	Clutch—Make and Type	Drive Type to Traction Members	Diameter (In.)	Face (In.)	Normal R.P.M.	Steering Type	Cooling System (Gal.)	Fuel Tank (Gal.)	Crankcase (Qts.)	Transmission (Qts.)	Final Drive Case (Qts.) (Each Case)	Starting Method	Line Number
5.47	....	2.00	....	GM.....2-71	2	2-4 1/4x5	142	1800	....	I	3	3 1/2	O	....	No	GM	DU	GM	P	Pu	Atw...SP	SG	.....	.....	.....	Clu	3 3/4	37	8	20	12	Ele	1
....	....	1.89	....	GM.....3-71	2	3-4 1/4x5	213	1500	....	I	4	3 1/2	O	....	No	GM	Uni	GM	P	Pu	Atw...SP	SG	12	8 3/4	890	Clu	5 1/4	31	11	28	7	Ele	2
4.62	6.03	1.86	4.17	GM.....4-71	2	4-4 1/4x5	284	1600	....	I	5	3 1/2	O	....	No	GM	Uni	GM	P	Pu	Roc...SP	SG	13 3/8	10	930	Clu	9 1/4	44	13	24	8	Ele	3
4.38	7.00	2.00	3.20	GM.....6-71	2	6-4 1/4x5	425	1500	....	I	7	3 1/2	O	....	No	GM	Uni	GM	P	Pu	Atw...SP	SG	20	15	650	Clu	12	68	14	40	8	Ele	4
6.10	....	2.10	....	Own.....D2	4	4-3 3/4x5	221	1525	22.5	I	5	2 3/4	D	....	.....	.....	Own	Don	Own	P	Pu	Own...SP	SG	12	7 1/2	850	Clu	7 3/4	20	13	10	4 1/2	GE	5
6.40	....	1.90	....	Own.....D4	4	4-4 1/4x5 1/2	312	1400	28.9	I	5	3	D	....	.....	.....	Own	Don	Own	P	Pu	Own...SP	SG	14	8 1/2	840	Clu	11	25	16	20	7	GE	6
5.80	....	1.80	5.40	Own.....D6	4	6-4 1/4x5 1/2	468	1400	43.3	I	7	3	D	....	.....	.....	Own	Don	Own	P	Pu	Own...SP	SG	13 3/4	12 1/2	913	Clu	12 1/4	48	19	38	12	GE	7
6.00	....	1.60	5.40	Own.....D7	4	4-5 1/2x8	831	1000	52.9	I	5	3 3/4	D	....	.....	.....	Own	Don	Own	P	Pu	Own...SP	SG	17 5/8	15	692	Clu	18	65	22	40	24	GE	8
3.80	4.90	1.60	2.60	Own.....D8	4	6-5 1/2x8	1246	950	79.3	I	7	3 3/4	D	....	.....	.....	Own	Don	Own	P	Pu	Own...SP	SG	14 1/16	15	804	Clu	28	69	34	40	26	GE	9
5.40	....	1.70	....	Own.....T-6	4	4-3 7/16x5 1/4	248	1450	24.0	I	3	2 3/4	D	G, K	Own	Own	Don	Own	P	Pu	Roc...SP	SG	12 1/16	8 1/2	811	Clu	9 1/2	20	9	16	1	HE	10
5.40	....	1.70	....	Own.....TD-6	4	4-3 7/16x5 1/4	248	1450	24.0	I	5	3 3/4	O	....	Own	Own	Don	Own	P	Pu	Roc...SP	SG	12 1/16	8 1/2	811	Clu	10 1/2	20	9	16	1	HE	11
5.30	....	1.70	....	Own.....T-9	4	4-4 1/4x5 1/2	334	1400	31.0	I	3	3 1/4	D	G, K	Own	Own	Don	Own	P	Pu	Roc...SP	SG	11	8 1/2	811	Clu	12	31	11	22	1 1/2	HE	12
5.30	....	1.70	....	Own.....TD-9	4	4-4 1/4x5 1/2	334	1400	31.0	I	5	4 1/8	O	....	Own	Own	Don	Own	P	Pu	Roc...SP	SG	11	8 1/2	878	Clu	13	31	11	22	1 1/2	HE	13
4.80	5.80	1.50	3.40	Own...TD-14	4	4-4 3/4x6 1/2	461	1350	36.1	I	5	3	O	....	Own	Own	Don	Own	P	Pu	Roc...SP	SG	11 3/4	11	844	Clu	20	45	16	24	2 1/2	HE	14
4.60	5.70	1.50	3.30	Own...TD-18	4	6-4 3/4x6 1/2	691	1200	54.1	I	7	3 1/2	O	....	Own	Bos	Don	Bos	P	Pu	Roc...SP	SG	13 1/4	12 1/2	750	Clu	27	60	22	30	5	Ele	15
.....	.....	2.35	....	Herc....IXK3	4	4-3 1/16x4	123	1700	15.6	L	3	2	G	K, D	Wi	Til	Vor	Herc	P	TS	Lg....SP	SG	8 1/2	6 1/2	551	Dif	2 3/4	12	5	8	1 1/2	HC[v]	16
.....	.....	1.36	....	Cont.....F226	4	6-3 1/16x4 3/8	226	1530	26.3	L	4	2 1/16	G	K	Bos	Til	Vor	Cont	P	Pu	Lg....DP	SG	10 1/2	8 1/2	765	Dif	5	18	8	32	**	HC[v]	17
.....	.....	1.36	....	Herc...DOOC	4	4-4x4 1/2	226	1530	25.6	I	5	3	O	....	.....	Bos	Vor	Herc	P	Pu	Lg....DP	SG	10 1/2	8 1/2	765	Dif	5 1/2	18	10	32	**	Ele	18
.....	.....	1.80	3.13	Herc.....JXD	4	6-4x4 1/2	320	1530	38.4	L	7	2 1/2	G	K	DR	Til	Vor	Herc	P	Pu	Lg....DP	SG	12	8 1/2	1150	Dif	6	23	6	36	**	Ele	19
.....	.....	1.80	3.14	Herc....DJXC	4	6-3 3/4x4 1/2	298	1400	33.7	I	7	3	O	....	.....	Bos	Vor	Herc	P	Pu	Lg....DP	SG	12	8 1/2	1050	Dif	5	23	12	36	**	Ele	20
.....	.....	2.19	3.94	Herc.....RXC	4	6-4 5/8x5 1/4	529	1300	51.3	L	7	3	G	....	DR	Til	Vor	Herc	P	Pu	Lg....DP	SG	13	11	980	Dif	10 1/4	30	12	52	**	Ele	21
.....	.....	2.02	3.64	Herc...DRXB	4	6-4 5/8x5 1/4	474	1200	45.9	I	7	3 1/2	O	....	.....	Bos	Vor	Herc	P	Pu	Lg....DP	SG	13	11	884	Dif	10 1/2	30	16	52	**	Ele	22
.....	.....	1.58	2.82	Herc...DFXE	4	6-5 5/8x6	895	1300	75.9	I	7	4 1/2	O	....	.....	Bos	Vor	Herc	P	Pu	Lg....SP	PL	24 1/2	15	535	Dif	14	60	24	144	**	Ele	23

HC—Hand Crank
HE—Hand Crank or Electric
I—In head (Valves)
K—Kerosene
L—"L" Head
Lg—Long Mfg.
No—No or None
O—Diesel fuel
Op—Optional
P—Pressure
Pl—Planetary
Pu—Pump
Roc—Rockford
SG—Spur Gear
SP—Single Plate, Dry
Til—Tillotson
TS—Thermo-Syphon
Uni—United Air Cleaner Div.
Vor—Vortox
Wi—Wico

AMERICAN COMMERCIAL

These specifications pertain to those civil aircraft

Line Numbers	MAKE AND MODEL	Type	A.T.C. Number	Number of Crew	Number of Passengers Seated	Fuel: Capacity (Gal.)	Fuel: Octane Recommended	Oil Capacity (Gal.)	Engine: Make and Model	Engine: Number Used	Take-off Hp. at Specified R.P.M.	Propellers: Make	Propellers: Type	Propellers: Diameter (Ft. and In.)	Propellers: Number of Blades	Dimensions (Ft. & In.): Span	Dimensions (Ft. & In.): Overall Length	Dimensions (Ft. & In.): Height (Taxi Position)	Dimensions (Ft. & In.): Wing Area (Gross) Sq. Ft.	Dimensions (Ft. & In.): Aileron Area (Sq. Ft.)
1	Aero (1) L-3805	PC-L	Pend	1	4–5	115	73	3	Lyco O-435-A	2	190–2550	Aero	C-CS	6′ 6″	2	43′ 10″	32′ 0″	12′ 0″	240.0	.....
2	Aeronca (2) Tandem	PL	.....	...	2	13	73	...	Cont.	1	65–2300	Sen	.....	.....	...	35′ 2″	21′ 6″	8′ 7″	.....	.....
3	Aeronca Side-by-Side	PL	.....	...	2	23	73	...	Cont.	1	65–2300	Sen	.....	.....	...	36′ 0″	20′ 5″	8′ 9″	.....	.....
4	Aeronca Side-by-Side	PL	.....	...	2	22	73	...	Cont.	1	85–2575	Sen	.....	.....	...	28′ 8″	.....	.....	.....	.....
5	All American (3) 10A	PL	Pend	...	2	20	73	...	Cont. C-85	1	85–2575	.....	Fxd	5′ 1″	2	33′ 0″	22′ 0″	9′ 0″	138.0	.....
6	Beechcraft (4) 35	PL	777	1	3	40	80	2½	Cont. E-165	1	185–2300	Own	Cnt	7′ 4″	2	32′ 10″	25′ 2″	6′ 6½″	177.6	11.5
7	Beechcraft D18C-T	PL	770	2	8	206	87	8½	Cont. R9A	2	525–2300	Ham	Hyd-Mc	8′ 3″	2	47′ 7″	33′ 11½″	9′ 2½″	349.0	22.6
8	Beechcraft D18S-T	PC-L	765	1–2	4–7	206	87	8½	P&W SB-3	2	450–2300	Ham	Cst	8′ 3″	2	47′ 7″	33′ 11½″	9′ 2½″	349.0	22.6
9	Beechcraft G17S	PC-LS	779	1	4	124	87	6½	P&W SB-3	1	450–2300	Ham	Cst	8′ 3″	2	32′ 0″	26′ 9″	8′ 0″	296.4	11.4
10	Bellanca (5) 14-13	PL	773	1	3	40	80	2	Frank. 6A4-150-B3	1	150–2600	S-A	F-C	6′ 2″	2	34′ 2″	21′ 3½″	5′ 6⅞″	161.5	.....
11	Boeing (6) 377-10-19	PL	.....	5–7	80	7630	115/145	200	P&W TSB3-G	4	3500–2700	Curt	C-Ff-Fr	16′ 8″	4	141′ 3″	110′ 4″	38′ 3″	1720.0	84.6*
12	Boeing 377-10-33	CL	.....	3–5	No	7630	115/145	200	P&W TSB3-G	4	3500–2700	Curt	C-Ff-Fr	16′ 8″	4	141′ 3″	110′ 4″	38′ 3″	1720.0	84.6*
13	Call (7) A3	PL	758	...	2	27	73	2	Cont. C125	1	125–2550	Sen	Fxd	6′ 4″	2	35′ 10″	23′ 5″	7′ 0″	181.6	10.9*
14	Cessna (8) 120	PL	768	...	2	25	73	1½	Cont. C85	1	85–2575	Sen	Fxd	6′ 7″	2	32′ 10″	21′ 6″	6′ 3¼″	159.3	14.0
15	Cessna 140	PL	768	...	2	25	73	1½	Cont. C85	1	85–2575	Sen	Fxd	6′ 7″	2	32′ 10″	21′ 6″	6′ 3¼″	159.3	14.0
16	Consol. Vultee (9) 240	PC-L	.....	4	40	1000	100/130	40	P&W R2800	2	2400–2800	Ham	C-Ff-Fr	13′ 1″	3	91′ 9″	74′ 8″	28′ 11″	817.0	42.0
17	Curtis-Wright (11) CW-32	CL	.....	2*	...	2450	100/130	100	Wright C9H7	4	1525–2800(e)	Curt	Rp-As	12′ 1″	3	130′ 2″	88′ 2″	32′ 4½″	1400	.....
18	Douglas (12) DC-3C-1030	PL	A669	2–3	18	804	91/96	58	P&W S1C3-G	2	1200–2700	Ham	Cst	11′ 6″	3	95′ 0″	64′ 5½″	14′ 11″	987	75.9
19	Douglas DC-3D-1012	PL	A669	2–3	21–24	804	91/96	58	P&W S1C3-G	2	1200–2700	Ham	Cst	11′ 6″	3	95′ 0″	64′ 5½″	14′ 11″	987	75.9
20	Douglas DC-6-477B	PL	A781	4–5	58–68	2577 (h)	100/130	128	P&W CA15	4	2100–2800	H-C	Cst-R	13′ 1″	3	117′ 6″	100′ 7″	28′ 5″	1463	85.0
21	Douglas DC-6-477B	PL	A781	6–8	50	4201	100/130	140	P&W CA15	4	2100–2800	H-C	Cst-R	13′ 1″	3	117′ 6″	100′ 7″	28′ 5″	1463	85.0
22	Douglas DC-6-477B	PL	A781	4–5	52	2577 (h)	100/130	128	P&W CA15	4	2100–2800	H-C	Cst-R	13′ 1″	3	117′ 6″	100′ 7″	28′ 5″	1463	85.0
23	Douglas DC-4	PL	Pend	4–5	44	2868 (k)	100/130	138	Allis. V1710-G2R	4	1600–3200	Ham	Cst	13′ 1″	3	117′ 6″	93′ 5″	27′ 7″	1457	93.6
24	Douglas DC-4-1009A	PL	A762	4–5	44–50	2868 (k)	100/130	138	P&W 2SD13-G	4	1450–2700	Ham	Cst	13′ 1″	3	117′ 6″	93′ 5″	27′ 7″	1457	93.6
25	Douglas DC-4-1037	CL	A762	2–3	.....	2400	100/130	88	P&W 2SD13-G	4	1450–2700	Ham	Cst	13′ 1″	3	117′ 6″	93′ 5″	27′ 7″	1457	93.6
26	Eng. & Research (13) 415-C	PL	718	...	2	25	73/80	1	Cont. C75	1	75–2275	Sen	Fxd	6′ 1″	2	30′ 0″	20′ 9″	5′ 0″	142.6	.....
27	Esheiman (14) EF-100	PL	Pend	...	2	30	80	2	Frank. 4A4-100B3	1	100–2550	Sen	Fxd	5′ 10″	2	30′ 0″	18′ 11″	5′ 8″	122.0	9.7
28	Fairchild (15) F24R46	PL-S	706	1	3	60	80	4	Rgr. 6-440-C2	1	175	.....	Fxd	7′ 2″	2	38′ 4″	25′ 10¼″	7′ 7½″	193.3	.....
29	Fairchild F24W46	PL-S	707	1	3	60	73	4	Warner 165	1	175–2250	.....	Fxd	7′ 2″	2	38′ 4″	25′ 10¼″	7′ 7½″	193.3	.....
30	Funk (16) B85C	PL	.....	...	2	20	73/80	4½	Cont. C85-12	1	85	Lewis	Fxd	6′ 0″	2	35′ 0″	20′ 1″	.....	157.1	11.5
31	Globe (17) GC-1B	PL	766	...	2	28	80	2	Cont. C-125	1	125–2550	Opt	Opt	6′ 1″	2	29′ 4″	20′ 10¼″	5′ 10½″	131.6	9.6
32	Hockaday (18) CF-130	PL	.....	...	2	24	73	3	Cont. C-125	1	125–2550	Opt	Opt	6′ 4″	2	33′ 0″	21′ 5″	7′ 8″	156.0	13.5
33	Lockheed (19) 649-79-21	PC-L	.....	5	48	4690	100/130	220	Wrt. 749C18BD1	4	2500	H-C	Rev	15′ 1″	3	123′ 0″	95′ 1 1/16″	23′ 0″	1650	99.6
34	Lockheed 749-79-22	PC-L	.....	7	44	5790	100/130	220	Wrt. 749C18BD1	4	2500	H-C	Rev	15′ 1″	3	123′ 0″	95′ 1 1/16″	23′ 0″	1650	99.6
35	Lockheed 649-18-21	PC-L	.....	5	48	4690	115/145	220	P&W. R2800CA-17	4	2300–2800	H-C	Rev	15′ 1″	3	123′ 0″	95′ 1 1/16″	23′ 0″	1605	99.6
36	Lockheed 749-18-22	PC-L	.....	7	44	5790	115/145	220	P&W. R2800CA-17	4	2300–2800	H-C	Rev	15′ 1″	3	123′ 0″	95′ 1 1/16″	23′ 0″	1605	99.6
37	Lockheed 89	PC-L	.....	11	180	**	**	**	**	...	**	**	**	**	...	189′ 0″	**	50′ 0″	**	**
38	Luscombe (20) 8A	PL	694	...	2	14	73	1	Cont. A65-8	1	65–2150	Sen	Fxd	6′ 4″	2	35′ 0″	19′ 11″	5′ 11″	140.0	13.0
39	Luscombe 8E	PL	694	...	2	30	73	1½	Cont. C85-12	1	85–2575	Sen	Fxd	6′ 0″	2	35′ 0″	19′ 11″	5′ 11″	140.0	13.0
40	Martin (21) 2-0-2	PL	.....	3–5	40	1030	.....	...	P&W. R2800CA3	2	2100	.....	Rev	13′ 1″	3	92′ 9″	71′ 4″	28′ 5⅛″	860.0	.....
41	Martin 2-0-2	CL	.....	2–3	...	1450	.....	...	P&W. R2800CA3	2	2400	.....	Rev	13′ 1″	3	92′ 9″	71′ 4″	28′ 5⅛″	860.0	.....
42	Martin 3-0-3	PL	.....	...	36	1000	.....	...	P&W. R2800CA3	2	2100	.....	Rev	13′ 1″	3	89′ 4″	71′ 4″	28′ 5⅛″	725.0	.....
43	Meyers (22) Mac 125-C	PL	.....	...	2	30	.....	2	Cont. C-125	1	125–2550	.....	Fxd	.....	...	30′ 0″	20′ 10″	6′ 0″	149.0	5.34
44	Nelson (23) BB-1	PL-PS	G-19	...	2	3	80	0	Own H44	1	25–3900	U.S.	Fxd	3′ 8″	2	47′ 4″	20′ 0″	6′10″	169.3	24.2
45	North American (24) Nav-4	PL	782	1	3	39.5	80	2½	Cont. 185	1	2300-SL	Har	Cnt	7′ 2″	2	33′ 4½″	27′ 8″	8′ 7″	184.3	10.3
46	Northrop (25) N-23	PC-L	.....	2	36	1000	91	36	Wrt. 744C7BA1	3	800–2800	Aero	Cst-Ff	12′ 0″	2	85′ 0″	60′ 7″	17′ 10″	1100.0	12.5
47	Piper Cub (29) J3C-65	PL‡	691	...	2	12	.....	1	Cont. A65-8	1	65–2300	Sen	Fxd	6′ 0″	2	35′ 2½″	22′ 4½″	6′ 8″	178.5	19.2
48	Piper Cub PA-12	PL‡	780	...	2	38	.....	1½	Lyco O-235-C	1	100–2600	Sen	Fxd	6′ 0″	2	35′ 5½″	22′ 10″	6′ 10″	179.3	19.2
49	Republic (27) RC-3	Amph	796	1	3	75	80	3	Frank. 6A8-215-B8F	1	215–2500	Har	C-RP	7′ 0″	2	37′ 8″	27′ 10¾″	10′ 1″	195.0	17.4
50	Republic RC-2	PL	.....	7	46	5900	115	148	P&W R4360	4	3500–2700	Curt	RP-AS	16′ 2″	4	129′ 2″	99′ 8¼″	31′ 4″	1640	42.38
51	Stinson Voyager (9) 108-1	PL	767	1	3	40	80	8	Frank. 6A4-150-B31	1	150–2600	S-A	F-C	6′ 4″	2	33′ 11″	24′ 6″	7′ 0″	155.0	18.02
52	Taylorcraft (28) Ace	PL	.....	...	2	12	.....	1	Cont. 65	1	.....	.....	.....	.....	...	36′ 0″	22′ 0″	6′ 6″	183.7	.....
53	Taylorcraft BC12D	PL	.....	...	2	24	.....	...	Cont. 65	1	.....	.....	.....	.....	...	36′ 0″	22′ 0″	6′ 6″	183.7	.....
54	Waco (29) W	PL	Pend	1	3	60	80	...	Frank. 6AL-215-B9F	1	215–2500	Har	Cnt	7′ 0″	2	38′0″	25′ 6⅛″	7′ 8″	198.64	42.17
55	Wheelair (30) 111A	PC-LS	Pend	1	3	50	73	3	Lyco O-435A	1	190–2550	Sen	Fxd	6′ 10″	2	37′ 0″	28′ 7″	7′ 2″	180.0	18.24

ABBREVIATIONS

*—Each
**—With 37619 lb. load
†—With 121700 lb. load
††—With 39500 lb. load
‡—At 1900 BHP and 135000 lb. take-off load
+—Plus
•—With provisions for relief crew of two
°—At take-off
♦—With gross load of 135000 lb.
♦—With 82500 lb. load
△—With 1675 BHP each engine
▽—With 1200 BHP each engine
▼—At sea level
▼▼—Data restricted
△△—At 7500 ft. altitude
‡—Also available as Seaplane or Skiplane
(a)—Not including fuel and oil
(b)—730 ft. fixed propeller, 1130 ft. constant propeller
(c)—610 ft. fixed propeller, 475 ft. constant propeller
(d)—Dual
(e)—With fuel derichment and water injection
(f)—With 10% allowance for take-off and climb
(g)—Stripped condition
(h)—Or 3301 gal. fuel capacity
(k)—Or 3952 gal. fuel capacity
(m)—Operating weight, empty
(n)—Cruising speed 250 to 280
(p)—High blower, 29000 ft.
(r)—With water, 2130 ft.
(s)—High blower, 26500 ft.
(t)—With water, 2550 ft.
(u)—High blower, 27400 ft.
(v)—With water, 2070 ft.
(w)—Without residual fuel and oil
(x)—1000 ft. in water
(y)—700 ft. in water
(z)—Includes 8 qts. oil and 4 gal. gasoline
Aero—Aeromatic propeller or equivalent
Allis—Allison Division
C-Ff-Fr—Constant speed, fast feathering, fast reversing
C-CS—Automatic controllable constant speed
CL—Cargo land plane
Cnt—Controllable
Cont—Continental Motors Corp.
Cst—Constant
Cst-Ff—Constant speed, full feathering
Cst-R—Constant speed—reversible
C-RP—Controllable and reversible pitch
Curt—Curtis
Ele—Electric
Ext—Expender tubebrake
F-C—Fixed with Sensenich, constant with Aeromatic
Frank—Franklin by Aircooled Motors Corp.
F-S—Fixed steering
F-S-L—Fixed, swivel, lockable
Fxd—Fixed
Ham—Hamilton Standard Propellers Div.
Har—Hartsell propellers
H-C—Hamilton or Curtis

AND PRIVATE AIRCRAFT

which will be in active production during 1947

Weights (Lb.)							Performance									Main Landing Gear							
																		Auxiliary Gear					
Empty	Gross	Gross Landing	Pay Load	Useful Load	Wing Loading (Lb. per Sq. Ft.)	Power Loading (Lb. per Hp.)	Maximum Speed at Altitude	Cruising Speed at Altitude	Fuel Consumption at Cruising Speed (Lb. per Hr.)	Range in Miles at Cruising Speed	Stalling Speed at Sea Level (m.p.h.)	Initial Climb (Ft. per Min.)	Service Ceiling with Normal Load (Ft.)	Take-off Distance (Over 50 ft. obstacle no wind) (Ft.)	Landing Distance (Over 50 ft. obstacle no wind) (Ft.)	Retractable	Method of Retraction	Tail or Nose Wheel	Retractable	Type	Tread (Ft., In.)	Brake Type	Line Numbers
2400(a)	4200	4200	1112	738	17.8	11.0	181–SL	179–10000	120.0	700	56	1400	22000	950	850	Y	Hyd	Nose	Y	.....	12′ 0″	Opt	1
750	1220	.....	.....	470	7.17	18.8	100	90	4.4	250	....	500	12600	370	.....	N	.....	Tail	..	.....	.....	.....	2
790	1250	.....	.....	460	7.15	19.2	100	90	4.4	420	....	.....	10800	380	.....	N	.....	Tail	..	.....	.....	.....	3
860	1400	.....	.....	.....	.....	.....	118	108	5.6	400	....	.....	11000	435	.....	N	.....	Nose	..	.....	.....	.....	4
900	1450	.....	.....	550	10.3	17.2	.....	.....	5.5	400+	50	700	12000	400	300	N	.....	Nose	N	Swi	.....	Hyd	5
1560(w)	2550	2550	.....	990	14.37	15.45	184–SL	175–10000	53.0	750	55	950	18000	.....	.....	Y	Ele	Nose	Y	Swi	9′ 7½″	Disc	6
6000(w)	9000	9000	.....	3000	25.8	9.0	236–4000	231–10000	223.0	1040	....	1490	23800	1530	1490	Y	Ele	Tail	Y	Sw-L	12′ 11″	Disc	7
5645(w)	8500	8500	.....	2855	24.4	10.6	231–5000	211–10000	195.0	1500	....	1250	21200	1650	1390	Y	Ele	Tail	Y	Sw-L	12′ 11″	Disc	8
2800(w)	4250	4250	.....	1450	14.3	10.6	212–5500	201–10000	95.0	1000	....	1320	20000	1130	980	Y	Ele	Tail	Y	Sw-L	7′ 2″	Disc	9
1200	2100	2100	585	900	14.5	15.0	170–SL	150–SL	57.0	600+	45	(b)	20000+	(c)	330	Y	Man	Tail	N	Swi	10′ 6″	Hyd	10
77559	135000	121700	25000	55026	78.5	9.65	375–25000†	320–25000†	3520	4100‡	101	1040↓	30000+	3950↓	3520	Y	Ele	Nose	Y	Ste	28′ 6″	Hyd	11
73684	135000	121700	41000	60676	78.5	9.65	375–25000†	320–25000†	3520	4100‡	101	1040↓	30000+	3950↓	3520	Y	Ele	Nose	Y	Ste	28′ 6″	Hyd	12
1020	1550	1550	.....	530	8.53	12.40	112–SL	102–SL	47.3	350	45	1000	17500	800	500	N	.....	Tail	N	SS	8′ 0″	Hyd	13
770	1450	.....	530	680	9.1	17.1	120	100	26.2	450+	41	680	15500	.....	.....	N	.....	Tail	N	Fxd	6′ 5″	Hyd	14
890	1450	.....	410	560	9.1	17.1	120	100	26.2	450+	41	680	15500	.....	.....	N	.....	Tail	N	SS	6′ 5″	Hyd	15
24754	39500	37619	8509	14746	48.4	8.2	336–13500△	300–16000▽	.....	800+	85	.....	30000	3800††	4140**	Y	Hyd(d	Nose (d	Y	St-L	25′ 0″	Hyd	16
40000(g)	80800	69300	26195	40800	57.6	13.25○	310–20000	254–20000	1703	1500	88	910	32000	3170	2990	Y	Hyd	Nose	Y	Ste	25′ 6″	.....	17
18090	25346	24546	4934	7256	25.5	10.5	231–8500	186–10000	634	1510(f)	67	1170	24100	1800	1885	Y	.....	Tail	N	Sw-L	18′ 6″	Hyd	18
17238	25346	24546	5631	8108	25.5	10.5	231–8500	186–10000	634	1510(f)	67	1170	24100	1800	1885	Y	.....	Tail	N	Sw-L	18′ 6″	Hyd	19
48875	84000	73000	17140	35125	57.4	10.0	351–18400	312–19600	2400	3350	88	1320	26300	4030	2904	Y	Hyd	Nose	Y	Ste	24′ 8″	Hyd	20
49737	93200	73000	13350	43463	63.7	11.09	351–18400	312–19600	2400	3910	88	1100	23900	5170	2904	Y	Hyd	Nose	Y	Ste	24′ 8″	Hyd	21
48875	84000	73000	14280	35125	57.4	10.0	351–18400	312–19600	2400	3350	88	1320	26300	4030	2904	Y	Hyd	Nose	Y	Ste	24′ 8″	Hyd	22
40885	73000	63500	14000	32115	50.1	8.76	303–11700	277–12600	1899	4200	83	975	25200	3470	2748	Y	Hyd	Nose	Y	Ste	24′ 8″	Hyd	23
39874	73000	63500	14000	33126	50.1	12.6	287–15000	243–12300	1520	4250	83	880	22300	3920	2748	Y	Hyd	Nose	Y	Ste	24′ 8″	Hyd	24
36240	73000	63500	22900	36760	50.1	12.6	296–15000	269–21100	1728	2850	84	1090	24800	3750	2770	Y	Hyd	Nose	Y	Ste	24′ 8″	Hyd	25
801	1260	1260	340	459	8.9	16.8	121–SL	103–SL	27.6	500	48	700	14000	560	.....	N	.....	Nose	N	F-S	8′ 0″	Disc	26
895	1510	1510	615	615	12.4	15.1	135–SL	118–SL	36.0	496	42	900	15000	600	400	N	.....	Tail	N	Swi	9′ 5″	Hyd	27
1650	2562	2562	.....	912	13.2	14.6	133–SL	118–SL	.....	620	57	....	14000	1100	1000	N	.....	Tail	N	Ste	.....	Hyd	28
1613	2562	2562	.....	949	13.2	15.7	132–SL	117–SL	.....	639	57	....	14000	1100	1000	N	.....	Tail	N	Ste	9′ 3″	Hyd	29
890	1350	1350	460	460	8.0	15.9	112–SL	100–SL	29.1	400	37	800	15000	350	287	N	.....	Tail	N	F-S-L	6′ 0″	Hyd	30
1110	1710	1710	.....	800	13.0	13.69	150–5000	140–5000	46.0	512	48	1000	16000	685	380	Y	Hyd	Tail	N	SS	9′ 8½″	Hyd	31
1236	1800	1800	564	.....	11.5	13.8	140–SL	125–SL	48.0	500	50	1150	19000	1000	800	N	.....	Tail	N	F-S	75.36″	.....	32
60158(m)	92000	82500	13880	34825	55.7○	9.2○	357–19500	317–20000	2900	3600	80↓	1540	26500	2970▼	2540▼	Y	Hyd	Nose	Y	Ste	28′ 0″	Hyd	33
61493(m)	100000	82500	13200	41919	60.8○	10.0○	350–19500	310–20000	2900	4000	80↓	1330	24500	3600▼	2540▼	Y	Hyd	Nose	Y	Ste	28′ 0″	Hyd	34
58351(m)	92000	82500	13880	36582	55.7○	10.0○	328–19000	291–20000	2200	3700	80↓	1250	24200	3100	2540	Y	Hyd	Nose	Y	Ste	28′ 0″	Hyd	35
59686(m)	100000	82500	13200	43676	60.6○	10.9○	321–18800	287–20000	2220	4600	80↓	1020	22100	4100	2540	Y	Hyd	Nose	Y	Ste	28′ 0″	Hyd	36
▼▼	184000	▼▼	20000	▼▼	▼▼	▼▼	300+–25000	250–25000(h)	▼▼	4500+	80	▼▼	▼▼	▼▼	▼▼	Y	Hyd	Nose	..	Ste	▼▼	Hyd	37
720	1260	1260	.....	540	9.00	19.4	115–SL	105–SL	28.8	350	37	900	15000	575SL	426SL	N	.....	Tail	N	Ste	6′ 4″	Mec	38
850	1400	1400	.....	530	10.0	16.5	125–SL	112–SL	35.2	650	48	800	16500	575SL	462SL	N	.....	Tail	N	Ste	6′ 4″	Mec	39
24030(m)	38000	.....	10970	13970	.....	.....	292–10000	263–7000	1116.4	970	81	.....	22600(p)	2415(r)	2280	Y	.....	Nose	Y	Ste	.....	.....	40
22545(m)	40745	.....	15100	18200	.....	.....	292–10000	263–7000	1116.4	1570	83	.....	20306(s)	2880(†)	2430	Y	.....	Nose	Y	Ste	.....	.....	41
23830(m)	35000	.....	10300	.....	.....	.....	307–10000	287–7000	1230.1	1000	82	.....	23700(u)	2340(v)	2340	Y	.....	Nose	Y	Ste	.....	.....	42
1090	.....	.....	.....	585	11.2	13.4	142	120	.....	500	....	700	.....	.....	.....	Y	Hyd	Tail	..	.....	.....	Hyd	43
575	940	940	347	365	5.55	37.0	70–3000	50–3000	15.0	50	39	250	6000	1885	1475	Y	Man	Nose	Y	Ste	4′ 2″	Int-X	44
1660	2750	2750	860	1070	14.48	14.44	157–SL	150–3500	70.0	500+	58	800	14000	1536	1129	Y	Hyd	Nose	Y	Ste	8′ 8½″	Ext	45
14400	25000	25000	.....	10600	22.7	10.4	193–10000	150–10000	517.0	1750	62	1500	20500	1000	1200	N	.....	Tail	Y	Sw-L	21′ 3″	Hyd	46
680	1220	.....	.....	540	6.8	18.8	83	75	25.6	200	....	450	14000	370	290	N	Fxd	Tail	Y	Ste	5′ 11″	Hyd	47
950	1500	.....	.....	550	8.36	15.0	115–SL	105–SL	37.8	600	....	750	18000	480	390	N	.....	Tail	Y	SS	6′ 2½″	Hyd	48
2100	3150	3150	680	1050	15.3	14.2	120–SL	103–SL	81.0	560	58	700	12000	800(x)	400(y)	Y	Hyd	Tail	Y	Sw-L	7′ 6″	Ext	49
68000	116600	90000	12400	48600	71.0	8.96	452–40000	400–40000	540.0	4100	100	2000	41000	5000	5150	Y	Hyd	Nose	Y	SS-L	24′ 3″	Hyd	50
1256(z)	2230	2230	660	974	14.4	14.9	135–SL	125–SL	66.0	410	57	650	13000	620	290	N	.....	Tail	N	SS	7′ 0″	.....	51
.....	1200	.....	.....	.....	.....	.....	117	100	24.0	270	....	750	15000	350	.....	..	Fxd	Tail	..	Ste	6′ 0″	Mec	52
.....	1200	.....	.....	.....	.....	.....	110	95	24.0	450	....	600	15000	350	.....	..	Fxd	Tail	..	Ste	.....	.....	53
2046	3000	3000	.....	954	15.25	13.95	154–SL	134–7500▲▲	74.4	606	58	950	17500	1250	1400	Y	Ele	Nose	Y	SS	5′ 5″	Hyd	54
1350(m)	2500	2500	658	1150	13.95	13.1	140–SL	125–SL	57.0	600	55	760	11500	1300	1000	N	.....	Nose	..	Ste	.....	Hyd	55

Hyd—Hydraulic
Hyd-Mc—Hydromatic
Int-x—Internal expanding
Lyco—Lycoming Div., The Aviation Corp.
Man—Manual
Mec—Mechanical
N—No or None
Opt—Optional
PC-L—Passenger and Cargo, Land Plane
PC-LS—Passenger, Cargo, Land or Seaplane
PL—Passenger Land Plane
PL-S—Passenger-Land or Seaplane
PL-PS—Passenger Land—Auxiliary Powered Sailplane
P&W—Pratt and Whitney
Rev—Reversible pitch
Rp-As—Reverse pitch, automatic synchronization
Rgr—Ranger engine
S-A—Sensenich or Koppers Aeromatic propellers optional
Sen—Sensenich Bros.
SL—Sea level

SS—Swivel and steering
SS-L—Swivel, steering, lockable
Ste—Steering
St-L—Steering, lockable
Swi—Swivel
SW-L—Swivel, lockable
Wrt—Wright
Y—Yes
(1)—Aero Design & Engineering Corp.
(2)—Aeronca Aircraft Corp.
(3)—All American Aircraft
(4)—Beech Aircraft Corp.
(5)—Bellanca Aircraft Corp.
(6)—Boeing Aircraft Co.
(7)—Call Aircraft Co.
(8)—Cessna Aircraft Co.
(9)—Consolidated Vultee Aircraft Corp.
(11)—Curtis-Wright Corp.
(12)—Douglas Aircraft Co., Inc.
(13)—Engineering & Research Corp.

(14)—Cheston L. Eshelman Co.
(15)—Fairchild Personal Planes Div. of Fairchild Engine & Airplane Corp.
(16)—Funk Aircraft Co.
(17)—Globe Aircraft Corp.
(18)—Hockaday Aircraft Corp.
(19)—Lockheed Aircraft Corp.
(20)—Luscombe Airplane Corp.
(21)—Glenn L. Martin Co.
(22)—Meyers Aircraft Co.
(23)—Nelson Aircraft Co.
(24)—North American Aviation, Inc.
(25)—Northrop Aircraft, Inc.
(26)—Piper Aircraft Corp.
(27)—Republic Aviation Corp.
(28)—Taylorcraft Aviation Corp.
(29)—The Waco Aircraft Co.
(30)—Puget Pacific Planes, Inc.

U. S. ROTARY WING AIRCRAFT

MAKE AND MODEL	General					Engine			Main Rotor							Anti-Torque Rotor					Weights (Lb.)			Performance							Landing Gear	
	A.T.C. Number	Number of Seats	Fuel Capacity (Gal.)	Octane Number Recommended	Oil Capacity (Gal.)	Make and Model	Number Used	Rated Hp. at Specified R.P.M.	Number Used	Location	Blades per Rotor	Diameter of Rotor (Ft. In.)	Blade Area (Sq. Ft.)	Type (If more than one used)	Rotor R.P.M. at Cruising Speed	Disc Area (Sq. Ft.)	No. Blades	Roto. Diameter (Ft. In.)	Blade Area (Sq. Ft.)	Rotor R.P.M. at Cruising Speed	Disc Area (Sq. Ft.)	Gross (Normal Load)	Empty	Useful Load	Max. Speed at Altitude	Cruising Speed at Altitude	Fuel Consumption—Cruis. Speed (Lb/hr)	Range (Miles) at Cruising Speed	Rate of Climb: Maximum (Ft/min)	Rate of Climb: Vertical (Ft/min)	Service Ceiling—Normal Load	Type	Tread—Main Gear
Bell (1) 47B	1	2	32	80	3	Frank 6V4-178-B3	1	178-3000	1	Cla	2	35′ 1½″	35.3	.....	(a)	965	2	5′ 8½″	2.40	(b)	25.3	2200	1521	679	106-SL	86-SL	84	216	1108	108	11300	(4t)	5′ 10¼″
Bendix (2) K	NX	1	.....	.....	...	Cont.	1	100-....	2	.....	2	25′	.....	Co	.....	.....	.....	.....	.....	.....	.....	1250	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bendix J	NX	4	.....	.....	...	P&W Wasp Jr.	1	450-....	2	.....	2	42′	.....	Co	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
de Lackner	.....	2	20	.....	...	Lycoming	1	125-....	2	Tan	...	24′	.....	.....	.....	.....	.....	.....	.....	.....	.....	1600	1125	.....	100	.....	.....	200	.....	.....	.....	.....
Doman-Frasier (3) L2-1A	.....	2	75	....	4.1	Frank O-405-9	1	226-3100	1	.....	4	38′ 4″	72.0	.....	239	1153	3	8′	6.10	1200	50.2	2490	1920	570	135-SL	100-SL	85	520	1900	.....	14000	Tri	9′ 0″
Doman-Frasier HC-2	.....	12	.....	.....	...	Wright 744C78A1	2	1200-....	1	.....	4	63′	.....	.....	150	3117	...	.....	.....	.....	.....	9000	6000	2500	130-SL	100-SL	...	350	.....	.....	23000	Tri	.....
Firestone (4) GA-45D	Pend	2	25	80	2	Frank 6ALV-335	1	175-3000	1	Cen	3	30′	38.7	.....	325	707	2	6′ 6″	2.40	1300	33.2	1950	1380	570	110-SL	90-SL	65	175	1250	300	15000	Tri	9′ 0″
Firestone GA-45E	Pend	2	25	80	2	Frank 6ALV-335	1	175-3000	1	Cen	3	30′	38.7	.....	325	707	2	6′ 6″	2.25	1300	33.2	1950	1370	580	110-SL	90-SL	65	175	1250	300	15000	Tri	9′ 0″
Firestone GA-50	Dev	4	67	91	5	Cont.	1	250-3200	1	Cen	3	44′	80.4	.....	200	1520	4	6′	3.12†	1375	28.3	3300	2225	1075	115-SL	95-SL	105	200	1300	250	.....	Tw	9′ 0″
Landgraf (5) H-2	.....	1	6½	80	1½	Pobjoy R	1	85-3300	2	Lsb	3	16′	32.4	Int	485	360	No	ne	.....	.....	.....	850	636	214	.....	100-SL	24	150	.....	.....	.....	Tri	5′ 10″
McDonnell (6) XHJD-1	.....	3	.....	91	...	P&W R985-14B	2	450-2300	2	SS	3	48′	.....	Int	190	3324	No	ne	.....	.....	.....	.....	.....	3000	100+	70+	.....	.....	.....	.....	.....	Tri	17′ 6″
Piasecki (7) PV-3	.....	10	60-100	.....	...	P&W R-1340	1	600-....	2	Tan	3	41′	.....	Tan	.....	.....	No	ne	.....	.....	.....	6700	4300	2400	125-5000	100-2500	....	303	1000	900	14000	Tri	.....
Rotor (8) XR-11	.....	2	7.6	100	1½	Cont. C100	1	100-....	2	Tan	3	22′ 5″	6.2	Tan	.....	551°	No	ne	.....	.....	.....	1250	807	443	Restr	icted	.....	.....	.....	.....	.....	Tri	6′ 6½″
Sikorsky (9) S-51	H-2	4	100	90	8	P&W R-985-B4	1	450-2300	1	For	3	48′	.....	.....	185	1809	3	8′ 5″	6.69	1222	55.7	4985	3735	1250	103-(c)	85-(d)	168	245	1200	620	14400	Tri	12′ 0″
Sikorsky S-52	.....	2	45	8	2½	Frank. 6ALV-168-BSF	1	178-3000	1	For	3	32′	.....	.....	280	804	2	5′	.....	1980	19.6	1750	1100	650	105-(e)	90-(c)	69	310	1500	1000	16000	Tri	6′ 8″
Willford (10) 22-80	.....	22	500	.....	...	Wright GR1820	2	1000-2300	1	Tp	3	80′	480	.....	150	5026	3	14′	18	1500	154	20000	13000	7000	133-....	115-....	100	575	700	500	7000♦	Tri	16′ 0″

ABBREVIATIONS

°—Total area †—Per rotor
(4t)—Quadracycle with tail skid
♦—Hovering ceiling
(a)—285-350 rpm (b)—1540-1892 rpm
(c)—Sea level to 4000 ft.
(d)—Sea level to 10000 ft.
(e)—Sea level to 2000 ft.
Cen—Central
Cla—Center line of engine aft of cabin
Co—Co-axial
Cont—Continental Motors Corp.
Dev—In development
For—Forward
Frank—Franklin (Air Cooled Motors)
Int—Intermeshing
Lab—Laterally spaced on booms
Pend—Pending
P&W—Pratt & Whitney Aircraft
SL—Sea level
SS—Side-by-side.
Tan—Tandem, fore and aft
Tp—Top of fuselage Tri—Tricycle
Tw—Tail wheel type
Wright—Wright Aeronautical Corp.
(1)—Bell Aircraft Corp.
(2)—Bendix Helicopter, Inc.
(3)—Doman-Frasier Helicopters, Inc.
(4)—Firestone Aircraft Co.
(5)—Landgraf Helicopter Co.
(6)—McDonnell Aircraft Corp.
(7)—Piasecki Helicopter Corp.
(8)—Rotor-Craft Corp.
(9)—Sikorsky Aircraft Div.
(10)—Pennsylvania Airline Syndicate, Inc.

Registered Civil Aircraft* *As of July 1, 1946*

STATE	Number	STATE	Number	STATE	Number	STATE	Number	STATE	Number
Alabama	630	Idaho	392	Michigan	2,593	New York	3,307	Tennessee	897
Arizona	678	Illinois	2,763	Minnesota	1,261	North Carolina	1,059	Texas	5,060
Arkansas	705	Indiana	1,628	Mississippi	503	North Dakota	345	Utah	310
California	6,539	Iowa	1,226	Missouri	1,640	Ohio	2,605	Vermont	101
Colorado	751	Kansas	1,356	Montana	427	Oklahoma	1,440	Virginia	886
Connecticut	504	Kentucky	450	Nebraska	738	Oregon	717	Washington	1,023
Delaware	138	Louisiana	556	Nevada	325	Pennsylvania	2,909	West Virginia	426
District of Columbia	940	Maine	298	New Hampshire	190	Rhode Island	114	Wisconsin	1,272
Florida	1,901	Maryland	662	New Jersey	1,021	South Carolina	622	Wyoming	213
Georgia	1,045	Massachusetts	939	New Mexico	482	South Dakota	340	TOTAL	56,927

*Civil Aeronautics Administration

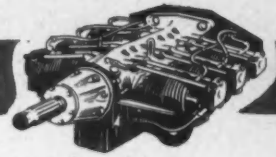
SMALL GASOLINE POWER UNITS

MAKE AND MODEL	Designed for Use	ENGINE: Number of Cycles	ENGINE: Type	ENGINE: No. of Cylinders	ENGINE: Bore and Stroke (In.)	ENGINE: Total Displacement (Cu. In.)	ENGINE: Compression Ratio (to —1)	ENGINE: Valve Location	ENGINE: Horsepower: Rated at RPM	ENGINE: Horsepower: Continuous at RPM	ENGINE: Torque—Lb. Ft. at RPM	ENGINE: Weight (Lb.)	GOVERNOR: Used	GOVERNOR: Type	Ignition System Type	FUEL SYSTEM: Type	FUEL SYSTEM: Make	Fuel Used	Starting Method
AIR COOLED ENGINES																			
Briggs & Stratton (1)....N	GS,Co,In,Pu,Re,Af	4	Ver	1	2x2	6.28	5.86	L	1.9-3600	1.7-3600	2.8-3600	40	Y	PM	Mag	Car	Own	G	Rhb
Briggs & Stratton.....A	GS,Co,In,Pu,Re,Af	4	Ver	1	2¼x2¼	8.95	4.26	L	2.4-3200	2.0-3200	4.0-3200	76	Y	Me	Mag	Car	Own	G	RH
Briggs & Stratton.....B	GS,Co,In,Pu,Re,Af	4	Ver	1	2⅝x2⅝	14.21	4.47	L	3.6-3200	3.0-3200	5.9-3200	92	Y	Me	Mag	Car	Own	G	RH
Briggs & Stratton.....ZZ	GS,Co,In,Pu,Re,Af	4	Ver	1	3x3¼	22.97	4.76	L	7.7-3200	6.5-3200	12.6-3200	118	Y	Me	Mag	Car	Own	G	RH
Briggs & Stratton.....NS	GS,Co,In,Pu,Re,Af	4	Ver	1	2x2	6.28	5.86	L	1.3-3200	1.1-3200	2.1-3200	38	Y	Pn	Mag	Car	Own	G	HBP
Briggs & Stratton.....I	GS,Co,In,Pu,Re,Af	4	Ver	1	2x1½	4.71	5.29	L	1.3-3600	1.1-3600	1.9-3600	38	Y	Pn	Mag	Car	Own	G	HBP
Briggs & Stratton.....WI	GS,Co,In,Pu,Re,Af	4	Ver	1	2x1½	4.71	5.29	L	1.0-3200	.85-3200	1.6-3200	36	Y	Pn	Mag	Car	Own	G	HBP
Continental (2) Tiny Tim Jr	GS	4	Ver	1	1¾x1¾	4.2	4.10	L	⅝-2400	⅝-2400	1.5-1800	....	N	....	Bat	MV	Zen	G	El
Continental.....AA7	GS,Co,Ha,Pu,Rc,Af	4	Ver	1	2⅛x2	7.10	4.20	L	2.0-2400	1.2-2400	3.5-2400	38	Y	Me	Mag	Car	Zen	G	PB
Cushman (3).....M	GS,Co,Pu,Af	4	Ver	1	2¼x2½	11.07	5.00	L	1.5-1800	1.5-1800	4.5-1800	60	Y	Fb	Mag	Car	Til	G	PB
Cushman.....M70	Pu,Af,Ag	4	Ver	1	2⅝x2¾	14.89	5.40	L	4.0-3000	4.0-3000	7.5-2800	80	Y	Fb	Mag	Car	Til	G	PB
Cushman.....M50	Pu,Af,Ag	4	Ver	1	2⅝x2½	13.53	5.00	L	2.0-1800	2.0-1800	6.0-1800	75	Y	Fb	Mag	Car	Til	G	PB
Delco (4).....10EAB3	GS	4	Ver	1	2¾x2 3/16	15.25	4.50	L	.....	1.9-1800	5.4-1800	....	N	Fb	Bat	Car	.....	G	El
Homelite (5).....22	GS,Pu	2	Ver	1	2x1½	4.7	6.00	R	1.0-3600	1.0-3600	.....	30	Y	Ce	Mag	Car	Own	G	Bp
Homelite.....23	GS,Pu,CS	2	Ver	1	2¼x2⅛	8.45	6.00	R	2.5-3600	2.5-3600	.....	49	Y	Ce	Mag	Car	Own	G	Bp
Homelite.....24	GS,Pu	2	Ver	1	2⅝x2½	11.5	6.00	R	4.25-3600	4.25-3600	.....	65	Y	Ce	Mag	Car	Own	G	Bp
Homelite.....25	GS	2	Op	2	2⅝x2½	23.0	6.00	R	8.25-3600	8.25-3600	.....	90	Y	Ce	Mag	Car	Own	G	Bp
Jacobsen (6).....J100	Co,Pu,Re,Af,Ha	2	Hor	1	2x1½	4.70	5.50	N	1.0-3000	.....	2.2-....	20	Y	Av	Mag	Car	Til	G	Rr
Jacobsen.....J150	Co,Pu,Re,Af,Ha	2	Hor	1	2¼x1¾	6.95	5.50	N	1.5-3000	.....	3.0-....	36	Y	Av	Mag	Car	Til	G	Rr
Kinner (8).....AB3	GS,Co,Ha,Pu,Re,Af	4	Hor	1	2¾x3	17.8	5.40	L	5.0-2600	.....	9.5-2500	75	Y	AB	Mag	Car	.....	G	Ro
Kinner.....BB	GS,Co,Ha,Pu,Re,Af	4	Ver	1	2½x3.00	14.7	5.00	L	3.0-2000	3.0-2000	7.88-2000	73	Y	FB	Mag	Car	MS	G	Bp
Lauson (9).....LJ	GS	4	Ver	1	1⅝x1½	3.11	5.10	L	.75-4000	.65-4000	1.0-4000	16	Y	Fb	Mag	Car	Til	G	Ro
Lauson.....RLC	GS,Co,Ha,Pu,Re,Af	4	Ver	1	1¾x1⅞	4.51	5.00	L	0.8-2400	0.7-2400	1.95-2400	30	Y	Fb	Mag	Car	Til	G	Ro
Lauson.....TLC	GS,Co,Ha,Pu,Re,Af	4	Ver	1	2¼x2¼	8.95	5.00	L	1.9-2400	1.6-2400	4.2-2400	65	Y	Fb	Mag	Car	Til	G	Ro
Lauson.....RSC	GS,Co,Ha,Pu,Re,Af	4	Ver	1	2x1⅞	5.89	5.00	L	1.2-2400	0.9-2400	2.45-2400	33	Y	Fb	Mag	Car	Til	G	Ro
Lauson.....PAC	GS,Co,Ha,Pu,Re,Af	4	Ver	1	2⅞x2¾	17.85	5.00	L	4.0-2400	3.6-2400	9.0-2400	85	Y	Fb	Mag	Car	Til	G	Ro
Mall (10).....1741OC	CS	2	Ver	1	2¾x2¾	12.20	5.00	....	6.0-4500	.....	.....	44	N	....	Mag	Car	Brk	G	Bp
McCulloch (17).....628	GS,Ha,Co,Pu,Re,Af	4	Hor	1	2x2	6.28	6.2	L	2.0-4000	1.7-3600	3.1-2400	27	Y	Me	Mag	Car	Own	G	PB
McCulloch.....1200B	Chain Saw	2	Ver	1	2x2	6.28	6.7	N	3.7-4000	2.8-3000	5.3-3200	20	N	....	Mag	Inj	Own	G	Bp
McCulloch.....1200D	Lawn Mower	2	Hor	1	2x2	6.28	....	N	3.0-3500	2.5-2500	5.1-2500	23	Y	Da	Mag	Car	Own	G	Bp
Novo (11).....CA-33	GS,Co,Pu,Re,Hs	4	Ver	1	3¼x4	33.00	4.25	L	5.1-1800	4.0-1800	16.0-1400	245	Y	Fb	Mag	Car	Hol	G,K,Ng,G	.....
Novo.....DA-33	Pu,Af	4	Ver	1	3¼x4	.....	5.50	L	8.0-2400	6.5-2400	20.0-1600	210	Y	Fb	Mag	Car	MS	G	He
Novo.....BA23	Pu,Af	4	Ver	1	2⅞x3½	.....	6.10	L	7.4-3200	5.8-3000	15.0-1800	150	Y	Fb	Mag	Car	Zen	G	He
Onan (12).....AH	In, GS	4	Ver	1	2½x2¼	11.05	6.23	L	3.3-3000	2.6-3000	6.0-3000	55	Y	‡	BM	Car	Zen	G	HE
Onan.....BH	In,GS	4	Op	2	2½x2¼	22.10	6.23	L	6.7-3000	5.3-3000	12.0-3000	85	Y	‡	BM	Car	MS	G	HE
Onan.....CK	In,GS	4	Op	2	3x2¾	38.80	6.20	L	10.1-3000	8.6-3000	18.0-3000	95	Y	‡	BM	Car	MS	NgG	HE
Onan.....Com-1B	In	4	Ver	1	2¾x2¾	16.30	4.10	L	3.45-2400	2.7-2400	7.1-2400	124	Y	‡	Mag	Car	Zen	G	Re
Onan.....1B	GS	4	Ver	1	2¾x2¾	16.30	4.80	L	2.5-1800	2.5-1800	7.3-1800	†177	Y	‡	Mag	Car	Zen	G	Re
Onan.....IC	GS	4	Ver	1	2¼x2¼	8.95	5.00	L	1.4-2100	1.0-1800	2.9-1800	†105	Y	‡	Mag	Car	Zen	G	HE
Salsbury (18).....600	GS,Co,Ha,Pu,Re,Af	4	(f)	1	3x2¾	19.40	6.00	L	6.0-2650	4.8-2650	12.0-2200	56	Y	Mec	Mag	Car	MS	G	HBP
Wisconsin (13).....AA	GS,Co,Pu,Re,Af,In	4	Ver	1	2¼x2¾	10.90	4.40	L	2.0-2600	1.6-2600	4.7-1900	76	Y	.....	Mag	Car	Str	G	B
Wisconsin.....AB	GS,Co,Pu,Re,Af,In	4	Ver	1	2½x2¾	13.50	4.40	L	3.0-2600	2.4-2600	6.7-1700	76	Y	.....	Mag	Car	Str	G	B
Wisconsin.....ABS	GS,Co,Pu,Re,Af,In	4	Ver	1	2½x2¾	13.50	5.17	L	4.0-3200	3.2-3200	6.9-2500	79	Y	.....	Mag	Car	Str	G	B
Wisconsin.....AK	GS,Co,Pu,Re,Af,In	4	Ver	1	2⅞x2¾	17.80	4.60	L	4.1-2400	3.3-2400	9.5-1700	77	Y	.....	Mag	Car	Str	G	B
Wisconsin.....AKS	GS,Co,Pu,Re,Af,In	4	Ver	1	2⅞x2¾	17.80	5.12	L	5.0-3200	4.0-3200	10.0-2000	77	Y	.....	Mag	Car	Str	G	B
Wisconsin.....ADH	GS,Co,Pu,Re,Af,In	4	Ver	1	2¾x3¼	19.30	5.10	L	5.1-2600	4.1-2600	10.8-2000	125	Y	.....	Mag	Car	Str	G	B
Wisconsin.....AEH	GS,Co,Pu,Re,Af,In	4	Ver	1	3x3¼	23.00	5.10	L	6.1-2600	4.9-2600	12.9-2000	130	Y	.....	Mag	Car	Str	G	B
Wisconsin.....AGH	GS,Co,Pu,Re,Af,In	4	Ver	1	3½x4	38.50	4.60	L	8.4-2100	6.7-2200	24.2-1300	175	Y	.....	Mag	Car	Str	G	HB
Wisconsin.....AHH	GS,Co,Pu,Re,Af,In	(	Ver	1	3⅝x4	41.30	4.55	L	9.2-2200	7.4-2200	25.9-1400	180	Y	.....	Mag	Car	Str	G	HB
WATER COOLED ENGINES																			
Cushman (3).....2R14	GS,Co,Pu,Af	4	Hor	1	3¼x4½	37.33	3.67	(a)	2.0-750	2.0-750	18.5-750	195	Y	Fb	Mag	MV	Own	G,K,D,Ng	He
Cushman.....3R20	GS,Co,Pu,Af	4	Hor	1	3½x4½	43.29	4.10	(a)	3.0-800	3.0-800	23.0-800	235	Y	Fb	Mag	MV	Own	G,K,D,Ng	He
Cushman.....4R30	GS,Co,Pu,Af	4	Hor	1	3¾x4½	49.70	4.64	(a)	4.0-850	4.0-850	28.0-850	245	Y	Fb	Mag	MV	Own	G,K,D,Ng	He
Cushman.....C34	Co,Pu,Af	4	Ver	1	4x4	50.26	4.00	(a)	(b)	(b)	26.8-1000	270	Y	Fb	Mag	Car	Til	G	He
IHC (14).....LB, 3-5 Hp	Pu,Re,Af	4	Hor	1	4x4⅛	51.80	4.60	I	(d)	(d)	35.8-750	290	Y	Fb	Mag	MV	Own	G,K,D,Ng	He
IHC.....LB, 1½-2½ Hp	Ha,Pu,Af	4	Hor	1	3½x3¼	24.90	4.70	I	(e)	(e)	16.5-875	194	Y	Fb	Mag	MV	Own	G,K,D,Ng	He
Le Roi (15).....D140	GS,Pu,Af	4	Ver	4	3½x3⅝	140.0	....	I	33.0-2400	23.0-1500	72.0-2400	650	Y	Fb	BM	CM	.....	G	HE
Le Roi.....B45	GS,Pu,Re,Af	4	Ver	2	2⅞x3½	45.40	5.80	L	9.8-1800	7.8-1800	29.0-1550	400	Y	Fb	Mag	Car	Zen	G	HE
Le Roi.....B91	GS,Pu,Re,Af	4	Ver	4	2⅞x3½	90.80	5.80	L	20.7-1800	16.5-1800	62.0-1550	495	Y	Fb	BM	Car	Zen	G	HE
Novo (11).....CWR-47	GS,Pu,Af,Hs,Co	4	Ver	2	2¾x4	47.00	6.00	L	10.0-2200	8.0-2200	30.0-1200	355	Y	Fb	Mag	Car	MS	G	He
Novo.....CWR-66	GS,Pu,Af,Hs,Co	4	Ver	2	3¼x4	66.00	6.00	L	15.0-2200	13.0-2200	46.0-1200	355	Y	Fb	Mag	Car	MS	G,K,D	He
Novo.....CWR-95	GS,Pu,Af,Hs,Co	4	Ver	4	2¾x4	95.00	6.00	L	23.0-2400	19.0-2400	63.0-1200	505	Y	Fb	Mag	Car	MS	G	He
Novo.....CWR-133	GS,Pu,Af,Hs,Co	4	Ver	4	3¼x4	133.0	6.00	L	32.0-2400	27.0-2400	97.0-1400	505	Y	Fb	Mag	Car	MS	G,K,D	He
Onan (12).....W3M or S	GS	4	IL	2	3x2⅝	38.80	5.50	L	7.2-1850	7.1-1800	20.4-1850	†450	Y	‡	BM	Car	Zen	G	He
Universal (16).....AFTC	GS	4	Ver	2	3x3½	49.50	5.79	L	5.0-1200	6.0-1350	25.0-1200	385	Y	Me	BM	Car	Str	G	HE

ABBREVIATIONS

†—Weight includes generator
‡—Flyweights in cam gear
(a)—"F" Head; In-Head for Intake, L-head for exhaust
AB—Air Vane or Flyball
Af—Auxiliary Farm Implement equipment
Ag—Auto glides
Av—Air Vane
B—Belt
(b)—4 to 6 Hp at 850 to 1300 rpm
Bat—Battery
BM—Battery and Magneto
Bp—Belt or Pulley
Brk—Bracke
Car—Carburetor
Ce—Centrifugal
CM—Carburetor or Mixing Valve
Co—Air Compressors
CS—Chain Saws
D—Distillate
Da—Dynamic Air
(d)—3 to 5 Hp at 600 to 1000 rpm
(e)—1½ to 2½ Hp at 600 to 1000 rpm
El—Electric
(f)—Cylinder 30° from horizontal
Fb—Flyball throttling
G—Gasoline
GS—Generator Sets
Ha—Home appliances
HB—Hand crank or Belt
HBP—Hand crank-Pedal-Belt or Pulley
He—Hand crank
HE—Hand crank or electric
Hol—Holley Carburetor Co.
Hor—Horizontal
Hs—Hoists
I—In-head
IL—In Line
In—Industrial
Inv—Inverted
Inj—Injector
K—Kerosene
L—Valves at side (L-Head)
Mag—Magneto
Me—Mechanical
MS—Marvel-Schebler Carburetor Div.
MV—Mixing Valve
MX—Mixers
N—No or None
Ng—Natural gas
NgG—Combination gas and gasoline
Op—Opposed
PB—Pedal or Belt or Pulley
PM—Pneumatic or Mechanical
Pu—Pumps
Pn—Pneumatic
R—Rotary valves
Re—Refrigerating equipment
RH—Rope or Hand crank
Rhb—Rope, Hand crank, Pedal, Belt or Pulley
Ro—Rope
Rr—Recoil or Rope
Str—Stromberg Carburetor Div.
Til—Tillotsen Mfg. Co.
Ver—Vertical
Y—Yes
Zen—Zenith Carburetor Div.
(1)—Briggs & Stratton Corp.
(2)—Continental Motors Corporation
(3)—Cushman Motor Works
(4)—Delco Appliance Division
(5)—Homelite Corporation
(6)—Jacobsen Mfg. Co.
(8)—Gladden Products Corp.
(9)—The Lauson Company
(10)—Mall Tool Company
(11)—Novo Engine Company
(12)—D. W. Onan & Sons, Inc.
(13)—Wisconsin Motor Corp.
(14)—International Harvester Co.
(15)—Le Roi Company
(16)—Universal Motor Company
(17)—McCulloch Motors Corp.
(18)—Salsbury Motors, Inc.

AMERICAN AIRCRAFT ENGINES



ENGINE MAKE AND MODEL	A. T. C. Number	GENERAL DATA: Arrangement	Cooling Medium	Number of Cylinders	Bore and Stroke (In.)	Total Piston Displacement (Cu. in.)	Compression Ratio (to 1)	B.M.E.P. at Maximum Hp. (Lb. per Sq. In.)	Blower Ratio	Cylinder Material	No. of Valves per Cylinder: Intake	Exhaust	Valve Arrangement	RATINGS: Maximum (Except Take-off) Horsepower	R. P. M.	At Sea Level or Altitude (Ft.)	Take-off Horsepower	R. P. M.	Cruising Horsepower	R. P. M.	Octane Rating of Fuel Required	Propeller Drive Ratio (to —1)	Weight (Lb.): Engine Dry—Without Hub or Starter	Per Maximum Hp. (except Take-off)	Carburetor: Number Used and Make	Type	Ignition System—Make	Starting: Make	Method	Installation Dimensions (Overall—Ins.): Length	Height or O. D.	Width	Height above Engine Bed	Diameter Mounting Ring or Distance Between Bearers
Allison	V1710-G2	V60	Liq	12-5½x6	1710.0	6.00	.....	7.76	.....	2	2	OH	1200	2700	6000	1600	3200	975	2700	100/130	2.38	1470	1.22	1-Str	Pl	Scin	.....	EM	93	38½	23⅞	21½	18⅛
		(2-Speed Blower Engine)						9.98						1120	2700	15500																		
Allison	V1710-G6	V60	Liq	12-5½x6	1710.0	6.00	.....	7.48	.....	2	2	OH	1100	2700	SL	1600	3200	825	2100	100/130	2.38	1595	1.45	1-Str	Pl[A]	Scin	.....	EM	103	33⅛	23⅞	21½	18⅛
		(2-Speed Blower Engine)						8.08						1000	2700	27700																		
Cameron (2)	C4-I-E-1	IL	Air	4-4¾x4¼	301.0	7.00	132	.....	(6)	1	1	HO	125	2500	SL	130	2600	110	2200	80	D	173	.....	1-DF	Pl	Scin	Eel	EM	43	25¼	14¼	6⅛	13¼
Continental	A65-8F	Hor	Air	4-3⅞x3⅝	171.0	6.30	131	No	(5)	1	1	In	65	2300	SL	65	2300	53	2150	73	D	170	2.62	1-Str	FL	Eis	None		30	23⅛	31½	.....	.....
Continental	A65-12F	Hor	Air	4-3⅞x3⅝	171.0	6.30	131	No	(5)	1	1	In	65	2300	SL	65	2300	53	2150	73	D	175.6	2.70	1-Str	FL	Eis	D3	EM	30	23⅛	31½	.....	.....
Continental	C75-12F	Hor	Air	4-4⅛x3⅝	188.0	6.30	139	No	(5)	1	1	In	75	2275	SL	75	2275	59	2275	73	D	182	2.43	1-Str	FL	Eis	D3	EM	32	21½	31½	.....	.....
Continental	C85-12F	Hor	Air	4-4⅛x3⅝	188.0	6.30	139	No	(5)	1	1	In	85	2575	SL	85	2575	63	2400	73	D	182	2.14	1-Str	FL	Eis	D3	EM	32	21½	31½	.....	.....
Continental	A100-1	Pen	Hor	Air	6-3⅞x3⅝	256.0	6.30	132	No	(5)	1	1	In	100	2350	SL	100	2350	73	2100	73	D	222.9	2.23	1-Str	FL	Scin	D3	EM	41	21¼	31½	.....	.....
Continental	C115-2	236	Hor	Air	6-4⅛x3⅝	282.0	6.30	138	No	(5)	1	1	In	115	2350	SL	115	2350	90	2200	73	D	257	2.23	1-MS	FL	Scin	D3	EM	39¼	23¼	31½	.....	.....
Continental	C125-2	236	Hor	Air	6-4⅛x3⅝	282.0	6.30	138	No	(5)	1	1	In	125	2550	SL	125	2550	93	2400	73	D	257	2.05	1-MS	FL	Scin	D3	EM	39¼	23¼	31½	.....	.....
Continental	▲▼E165-2	Pen	Hor	Air	6-4x5	471.0	7.00	135	No	(5)	1	1	In	165	2050	SL	165	2050	115	1825	80	D	321	1.94	1-Str	FL	E-Sc	D3	EM	41.34	25.83	33.33	.....	.....
Continental	△▼E165-3	246	Hor	Air	6-4x5	471.0	7.00	135	No	(5)	1	1	In	165	2050	SL	165	2050	115	1825	80	D	323	1.97	1-Str	FL	E-Sc	D3	EM	43.70	25.83	33.33	.....	.....
Continental	△▼E165-4	246	Hor	Air	6-4x5	471.0	7.00	135	No	(5)	1	1	In	165	2050	SL	165	2050	115	1825	80	D	318	1.93	1-Str	FL	E-Sc	D3	EM	43.70	22.23	33.33	.....	.....
Continental	▲▼E165-5	Pen	Hor	Air	6-4x5	471.0	7.00	135	No	(5)	1	1	In	165	2050	SL	165	2050	115	1825	80	D	313	1.90	1-Str	FL	E-Sc	D3	EM	41.34	22.23	33.33	.....	.....
Continental	△▼E185-1	246	Hor	Air	6-4x5	471.0	7.00	135	No	(5)	1	1	In	185	2300	SL	185	2300	130	2050	80	D	318	1.72	1-Str	FL	E-Sc	D3	EM	43.70	22.23	33.33	.....	.....
Continental	▲▼E185-2	Pen	Hor	Air	6-4x5	471.0	7.00	135	No	(5)	1	1	In	185	2300	SL	185	2300	130	2050	80	D	321	1.73	1-Str	FL	E-Sc	D3	EM	41.34	25.83	33.33	.....	.....
Continental	▲▼E185-3	246	Hor	Air	6-4x5	471.0	7.00	135	No	(5)	1	1	In	185	2300	SL	185	2300	130	2050	80	D	326	1.78	1-Str	FL	E-Sc	D3	EM	43.70	25.83	33.33	.....	.....
Continental	△▼E185-5	Pen	Hor	Air	6-4x5	471.0	7.00	135	No	(5)	1	1	In	185	2300	SL	185	2300	130	2050	80	D	313	1.42	1-Str	FL	E-Sc	D3	EM	41.31	22.23	33.33	.....	.....
Continental	W670-16	162	Rad	Air	7-5½x4⅝	667.8	6.10	126	No	(5)	1	1	In	220	2075	SL	220	2075	183	1830	73	D	455	2.11	1-Str	FL	E-Sc	D3	EM	34.18	42.25	42.25	.....	.....
Continental	W670-MA	162	Rad	Air	7-5½x4⅝	667.8	6.10	130	No	(5)	1	1	In	240	2200	SL	240	2200	175	2000	80	D	455	1.91	1-Str	FL	Scin	D3	EM	34.18	42.25	42.25	.....	.....
Continental	R9A	245	Rad	Air	9-5x5½	971.9	6.30	186	10.15	(5)	1	1	In	525	2300	2500	525	.....	330	2100	91/93	D	705	1.34	1-3S	Pl	.....	D3	EM	42.50	45.20	45.20	.....	.....
Franklin (1)	4A4-75-A3	239	Hor	Air	4-4½x3½	225.0	6.50	129	No	(6)	1	1	In	75	2050	SL	.....	.....	51	1870	73	D	214	2.85	1-M3	FL	Eis	AL	EM	30½	20½	30½	12½	.....
Franklin	4A4-85-A3	239	Hor	Air	4-4½x3½	225.0	6.50	127	No	(6)	1	1	In	85	2350	SL	.....	.....	64	2140	73	D	214	2.51	1-M3	FL	Eis	AL	EM	30½	20½	30½	12½	.....
Franklin	4A4-95-A3	239	Hor	Air	4-4½x3½	225.0	6.50	129	No	(6)	1	1	In	95	2600	SL	.....	.....	71	2380	73	D	214	2.25	1-M3	FL	Eis	AL	EM	30½	20½	30½	12½	.....
Franklin	4A4-75-B3	239	Hor	Air	4-4½x3½	225.0	7.00	135	No	(6)	1	1	In	75	1950	SL	.....	.....	51	1775	80	D	214	2.83	1-M3	FL	Eis	AL	EM	30½	20½	30½	12½	.....
Franklin	4A4-85-B3	239	Hor	Air	4-4½x3½	225.0	7.00	138	No	(6)	1	1	In	85	2200	SL	.....	.....	64	2000	80	D	214	2.51	1-M3	FL	Eis	AL	EM	30½	20½	30½	12½	.....
Franklin	4A4-100-B3	239	Hor	Air	4-4½x3½	225.0	7.00	136	No	(6)	1	1	In	100	2600	SL	.....	.....	75	2370	80	D	214	2.14	1-M3	FL	Eis	AL	EM	30½	20½	30½	12½	.....
Franklin	6A4-125-A3	238	Hor	Air	6-4½x3½	335.0	6.50	134	No	(6)	1	1	In	125	2200	SL	.....	.....	91	2000	73	D	231	2.32	1-M3	FL	Eis	D3	EM	37⅛	22½	30	13½	.....
Franklin	6A4-135-A3	238	Hor	Air	6-4½x3½	335.0	6.50	130	No	(6)	1	1	In	135	2450	SL	.....	.....	101	2230	73	D	231	2.15	1-M3	FL	Eis	D3	EM	37⅛	22½	30	13½	.....
Franklin	6A4-145-A3	238	Hor	Air	6-4½x3½	335.0	6.50	132	No	(6)	1	1	In	145	2600	SL	.....	.....	109	2370	73	D	231	2.00	1-M3	FL	Eis	D3	EM	37⅛	22½	30	13½	.....
Franklin	6A4-130-B3	238	Hor	Air	6-4½x3½	335.0	7.00	130	No	(6)	1	1	In	130	2200	SL	.....	.....	93	2000	80	D	231	2.23	1-M3	FL	Eis	D3	EM	37⅛	22½	30	13½	.....
Franklin	6A4-140-B3	238	Hor	Air	6-4½x3½	335.0	7.00	140	No	(6)	1	1	In	140	2375	SL	.....	.....	105	2180	80	D	231	2.07	1-M3	FL	Eis	D3	EM	37⅛	22½	30	13½	.....
Franklin	6A4-150-B3	238	Hor	Air	6-4½x3½	335.0	7.00	136	No	(6)	1	1	In	150	2600	SL	.....	.....	113	2370	80	D	231	1.91	1-M3	FL	Eis	D3	EM	37⅛	22½	30	13½	.....
Franklin	6A8-175-B7	.....	Hor	Air	6-5x4¼	500.0	7.00	126	No	(6)	1	1	In	175	2200	SL	.....	.....	131	2000	80	D	332	2.18	1-M3	FL	Eis	D3	EM	45½	30⅛	33	21	.....
Franklin	6A8-200-B7	.....	Hor	Air	6-5x4¼	500.0	7.00	132	No	(6)	1	1	In	200	2400	SL	.....	.....	150	2180	80	D	332	1.91	1-M3	FL	Eis	D3	EM	45½	30⅛	33½	21	.....
Franklin	6A8-225-B7	.....	Hor	Air	6-5x4¼	500.0	7.00	137	No	(6)	1	1	In	225	2600	SL	.....	.....	169	2370	80	D	332	1.63	1-M3	FL	Eis	D3	EM	45½	30⅛	33	21	.....
Franklin	6A8-215-B9F	242	Hor	Air(a)	6-5x4¼	500.0	7.00	136	No	(6)	1	1	In	215	2500	SL	.....	.....	161	2280	80	D	474	2.21	1-M3	FL	D3	D3	EM	63⅛	23⅞	33	21⅛	.....
Franklin	6V4-178-B3	244	Hor	Air	6-4½x3½	335.0	7.00	140	No	(6)	1	1	In	178	3000	SL	.....	.....	.....	.....	80	D	231	1.65	1-M3	FL	Scin	AL	EM	33	23½	30	.....	.....
Franklin	6V4-165-B3F	.....	Hor	Air(a)	6-4½x3½	335.0	7.00	130	No	(6)	1	1	In	165	3000	SL	.....	.....	.....	.....	81	D	339	2.05	1-Str	Pl	Scin	AL	EM	43½	23½	30	.....	.....
Franklin	6A4-165-B3	238	Hor	Air	6-4½x3½	335.0	7.00	139	No	(6)	1	1	In	165	2800	SL	.....	.....	185	2300	80	D	307	1.83	1-M3	FL	Scin	D3	EM	37⅛	25⅞	30⅛	13½	.....
Jacobs	O-200A	.....	Hor	Air	4-4x4	201.0	6.50	143	No	(5)	1	1	In	83	2350	SL	61	2120	80	D	193	2.23	1-M3	FL	Scin	D3	EM	35.47	18.03	33.6	.....	13
Jacobs	O-240A	.....	Hor	Air	4-4⅜x4	241.0	6.50	143	No	(5)	1	1	In	100	2300	SL	100	2300	75	2300	80	D	223	2.23	Opt	F-FI	Scin	D3	EM	33.83	18.13	33.8	.....	13
Jacobs	O-240L	.....	Hor	Liq	4-4⅜x4	241.0	6.50	143	No	(2)	1	1	In	100	2300	SL	100	2300	75	2300	80	D	223	2.23	Opt	F-FI	Scin	D3	EM	33.83	18.13	23.5	.....	13
Jacobs	O-360A	.....	Hor	Air	6-4⅜x4	361.0	6.50	151	No	(5)	1	1	In	165	2400	SL	165	2400	120	2160	80	D	303	1.82	Opt	F-FI	Scin	D3	EM	47.44	18.13	33.8	.....	13
Jacobs	O-360L	.....	Hor	Liq	6-4⅜x4	361.0	6.50	151	No	(2)	1	1	In	165	2400	SL	165	2400	120	2160	80	D	345	2.03	Opt	F-FI	Scin	D3	EM	47.83	18.13	32.5	.....	15
Jacobs	R-755A	237	Rad	Air	7-5¼x5	757.0	6.00	143	No	(5)	1	1	In	300	2200	SL	300	2200	225	2000	80	D	603	1.63	1-Str	FL	Scin	Eel	EM	39.5	44	.....	.....	15½
Jacobs	R-755E	.....	Rad	Air	7-5¼x5	757.0	6.50	118	No	(5)	1	1	In	350	2500	SL	350	2500	233	2250	91	.613	870	1.63	1-Str	FL	Scin	Eel	EM	42.33	44	.....	.....	13½
Jacobs	R-915A	.....	Rad	Air	7-5½x5½	914.0	6.00	124	No	(5)	1	1	In	375	2300	SL	375	2300	275	2070	80	D	593	1.49	1-Str	FL	Scin	Eel	EM	40.4	45.0	.....	.....	13½
Kinner (4)	K-5	3	Rad	Air	5-4½x5½	372.0	6.10	118	No	(5)	1	1	In	100	1810	SL	100	1810	75	1610	73	1.00	304	3.04	1-SH	FL	Scin	Eel	Opt	33.0	45½	.....	.....	14
Kinner	R-5	51	Rad	Air	5-4½x5½	441.0	5.25	116	No	(6)	1	1	In	125	1925	SL	125	1925	95	1725	73	1.00	310	2.48	1-SH	FL	Scin	Eel	Opt	33.0	45½	.....	.....	14

Kinner (4)	K-5	3	Rad	Air	5-4¼x5¼	372.0	5.10	118	No	(5)	1	1	In	100	1810	SL	100	1810	78	1610	73	1.00	304	3.04	1-SH	FL	Scin	Ecl	Opt	33.0	45 11/32	.....	.....	14
Kinner	B-5	51	Rad	Air	5-4⅝x5¼	441.0	5.25	116	No	(5)	1	1	In	125	1925	SL	125	1925	90	1725	73	1.00	312	2.49	1-SH	FL	Scin	Ecl	Opt	33.0	45 11/32	.....	.....	14
Kinner	B-54	51	Rad	Air	5-4⅝x5¼	441.0	5.25	116	No	(5)	1	1	In	125	1925	SL	125	1925	90	1725	73	1.00	312	2.49	1-SH	FL	Scin	Ecl	Opt	31.5	45 11/32	.....	.....	14
Kinner	R-5, Series 2	153	Rad	Air	5-5x5½	540.0	5.50	127	No	(5)	1	1	In	160	1850	SL	160	1850	115	1650	73	1.00	335	2.09	1-SH	FL	Scin	Ecl	Opt	33.1	45 19/32	.....	.....	14
Kinner	R-55	153	Rad	Air	5-5x5½	540.0	5.50	127	No	(5)	1	1	In	160	1850	SL	160	1850	115	1650	73	1.00	346	2.16	1-SH	FL	Scin	Ecl	Opt	33.6	45 19/32	.....	.....	14
Kinner	R-56	153	Rad	Air	5-5x5½	540.0	5.50	127	No	(5)	1	1	In	160	1850	SL	160	1850	115	1650	73	1.00	362	2.26	1-SH	FL	Scin	Ecl	Opt	33.6	45 19/32	.....	.....	14
Lycoming (3)	O-145-B2	210	Hor	Air	4-3⅝x3½	144.5	6.50	140	No	(1)	1	1	In	65	2550	SL	65	2550	49	2310	73	1.00	163	2.50	1-MS	FL	Scin	.....	PS	24.62	20.59	29.56	.....	(s)
Lycoming	O-235-C	223	Hor	Air	4-4⅜x3⅞	233.3	6.50	136	No	(5)	1	1	In	100	2600	SL	100	2600	75	2360	73	1.00	207	2.07	1-MS	FL	Scin	DR	EM	29.58	22.53	32.00	.....	(y)
Lycoming	O-235C1	Pen	Hor	Air	4-4⅜x3⅞	233.3	6.75	141	No	(5)	1	1	In	108	2600	SL	115	2800	81	2360	80	1.00	207	1.92	1-MS	FL	Scin	DR	EM	29.56	22.53	32.00	.....	.....
Lycoming	O-290-A	229	Hor	Air	4-4⅞x3⅞	289.0	6.50	132	No	(5)	1	1	In	125	2600	SL	125	2600	94	2360	73	1.00	245	1.98	1-MS	FL	Scin	DR	EM	31.54	26.64	32.32	.....	(t)
Lycoming	GO-290-A	.....	Hor	Air	4-4⅞x3⅞	289.0	7.50	137	No	(5)	1	1	In	160	3000	SL	170	3400	120	2720	91/96	1.56	323	2.02	1-MS	FL	Scin	DR	EM	34.59	28.50	33.12	.....	(t)
Lycoming	O-435-A	228	Hor	Air	6-4⅞x3⅞	434.0	6.50	136	No	(5)	1	1	In	190	2550	SL	190	2550	143	2310	73	.64	364	1.91	1-MS	FL	Scin	DR	EM	38.10	29.61	32.24	.....	(u)
Lycoming	GO-435-A-C	.....	Hor	Air	6-4⅞x3⅞	434.0	7.50	146	No	(5)	1	1	In	240	3000	SL	260	3400	180	2720	91/96	1.56	401	1.67	1-MS	FL	Scin	DR	EM	.....	.....	.....	.....	(u)
Lycoming	R-680-E3A	202	Rad	Air	9-4⅝x4½	680.4	7.00	151	1.00	(5)	1	1	In	285	2200	SL	300	2300	222	2000	91/96	.64	515	1.80	1-Str	FL	Scin	Ecl	EM	37.50	43.50	.....	.....	19.25
Lycoming	R-7755-3	.....	Rad	Liq	36-6⅜x6¾	7755.0	8.50	178	6.0	(5)	1	1	In	4000	2300	.....	5000	2600	3000	2100	.246(s)	100/130	6050	1.51	1-Ben	PI	Scin	Ecl	EM	87.1	61.0	.....	.....	.....
Nelson (5)	H-44	(d)	Hor	Air	4-2¼x2¾	44.0	9.00	116	.....	(9)	.....	.....	.....	25	3900	SL	.....	.....	.....	.....	80	D	40	1.60	1-	FL	Bat	Own	PC	19	13¾	23½	.....	.....
Pratt & Whitney	Wasp Junior-B4-B5	123	Rad	Air	9-5 3/16x5 3/16	985.0	6.00	157	10.00	(5)	1	1	In	450	2300	SL	450	2300	300	2000	91/96	1.00	674	1.49	1-Str	FL	Bos	Opt	EM	43.06	46.13	.....	.....	VM
Pratt & Whitney	Wasp-S3H1	143	Rad	Air	9-5¾x5¾	1344.0	6.00	147	10.00	(5)	1	1	In	550	2200	5000	600	2250	400	2000	91/96	1.00	865	1.57	1-Str	FL	Scin	Opt	EM	43.00	51.81	.....	.....	23⅜
	S3H1-G	142	Rad	Air	9-5¾x5¾	1344.0	6.00	147	10.00	(5)	1	1	In	550	2200	5000	600	2250	400	2000	91/96	.667	938	1.70	1-Str	FL	Scin	Opt	EM	47.81	51.81	.....	.....	23⅜
	S3H2	.....	Rad	Air	9-5¾x5¾	1344.0	6.00	147	10.00	(5)	1	1	In	550	2200	5000	600	2250	400	2000	91/96	1.00	875	1.59	1-Str	FL	Scin	Opt	EM	43.00	51.81	.....	.....	23⅜
Pratt & Whitney	Wasp-S1H1	129	Rad	Air	9-5¾x5¾	1344.0	6.00	147	12.00	(5)	1	1	In	550	2200	6200	600	2250	400	2000	91/96	1.00	865	1.57	1-Str	FL	Scin	Opt	EM	43.00	51.81	.....	.....	23⅜
Pratt & Whitney	Twin Wasp-S1C3-G	186	Rad	Air	14-5½x5½	1830.0	6.70	178	7.15	(5)	1	1	In	1050	2550	7500	1200	2700	700	2250	91/96	.562	1467	1.39	1-Str	PI	Bos	Opt	EM	61.02	48.19	.....	.....	27
	2SD13-G	230	Rad	Air	14-5¾x5½	2000.0	6.50	186	7.15	(5)	1	1	In	L1200	2550	5000	1450	2700	735	2230	100/130	.500	1595	1.33	1-Str	PI	Scin	Opt	EM	59.63	49.20	.....	.....	27
		.....	(2-S	peed	Blower Engi	ne)	.....	171	9.52	.....	.....	.....	.....	H1100	2550	14000	.....	.....	675	2230	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pratt & Whitney	Twin Wasp-D5	230	Rad	Air	14-5¾x5½	2000.0	6.50	188	7.15	(5)	1	1	In	1200	2550	6400	1450	2700	735	2250	100/130	.500	1570	1.31	1-Str	PI	Scin	Opt	EM	59.63	49.20	.....	.....	27
	Twin Wasp 2SD1-G	230	Rad	Air	14-5¾x5½	2004.0	6.50	171	7.15	(5)	1	1	In	L1100	2550	7500	450	2700	~ 100	2550	100/130	.500	1590	1.44	1-Str	PI	Scin	Opt	EM	.....	49.10	.....	.....	30
		.....	(2-S	peed	Blower Engi	ne)	.....	155	9.52	.....	.....	.....	.....	H1000	2550	17000	.....	.....		2550	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pratt & Whitney	Double Wasp-CA3	231	Rad	Air	18-5¾x6	2804.0	6.70	196	7.15	(5)	1	1	In	1800	2600	6000	2100a	2800	1200	2250	100/130	.450	2327	1.29	1-Str	PI	Scin	Opt	EM	78.40	52.80	.....	.....	33.75
Pratt & Whitney	Double Wasp-CA5	231	Rad	Air	18-5¾x6	2804.0	6.70	206	7.15	(5)	1	1	In	1900	2600	4500	2300a	2800	1200	2250	115/145	.450	2327	1.23	1-Str	PI	Scin	Opt	EM	78.40	52.80	.....	.....	33.75
Pratt & Whitney	Double Wasp-CA15	231	Rad	Air	18-5¾x6	2804.0	6.70	196	7.15	(5)	1	1	In	1800	2600	6000	2100a	2800	1200	2250	100/130	.450	2360	1.31	1-Str	PI	Scin	Opt	EM	78.40	52.80	.....	.....	33.75
		.....	(2-S	peed	Blower Engi	ne)	.....	174	9.45	.....	.....	.....	.....	1600	2600	16000	1700	2800	1100	2250	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pratt & Whitney	Double Wasp-CA17	231	Rad	Air	18-5¾x6	2804.0	6.70	206	7.15	(5)	1	1	In	1900	2600	4500	2300a	2800	1200	2250	115/145	.450	2360	1.24	1-Str	PI	Scin	Opt	EM	78.40	52.80	.....	.....	33.75
		.....	(2-S	peed	Blower Engi	ne)	.....	185	9.45	.....	.....	.....	.....	1700	2600	14500	2000b	2600	1100	2250	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pratt & Whitney	Double Wasp-CA18	231	Rad	Air	18-5¾x6	2804.0	6.70	196	7.15	(5)	1	1	In	1800	2600	6000	2100a	2800	1200	2250	100/130	.450	2360	1.31	1-Str	PI	Scin	Opt	EM	78.40	52.80	.....	.....	33.75
		.....	(2-S	peed	Blower Engi	ne)	.....	182	9.00	.....	.....	.....	.....	1675	2600	13500	1900b	2600	1100	2550	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pratt & Whitney	Wasp Major-TSB3-G	247	Rad	Air	28-5¾x6	4363.0	6.70	200	6.37	(5)	1	1	In	2800	2550	3500	3500	2700	1900	2250	115/145	.375	3470	1.24	1-Str	PI	Scin	Opt	EM	98.75	53.50	.....	.....	36.75
Pratt & Whitney	Wasp Major-VSB11-G	247	Rad	Air	28-5¾x6	4363.0	7.00	178	6.08	(5)	1	1	In	2500	2550	5000	3000	2700	1675	2230	100/130	.425	3490	1.40	1-Str	PI	Scin	Opt	EM	98.75	53.50	.....	.....	36.75
		.....	(2-S	peed	Blower Engi	ne)	.....	157	7.52	.....	.....	.....	.....	2200	2550	14500	.....	.....	1475	2230	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ranger	6-440C-2	216	IV-L	Air	6-4⅛x5½	441.0	6.00	126	No	(5)	1	1	OH	175	2450	SL	175	2450	131	2230	65	D	378	2.14	1-Str	FL	Scin	Op	Op	53.16	33.50	21.60	.....	26.87
Ranger	6-440C-5	216	IV-L	Air	6-4⅛x5½	441.0	7.50	146	No	(5)	1	1	OH	200	2450	SL	200	2450	150	2230	87	D	376	1.88	1-SM	FL	Scin	Op	Op	53.16	33.50	21.87	.....	26.87
Ranger	SGV-770C-1B	232	V60	Air	12-4x5⅛	773.0	6.50	154	9.50	(10)	1	1	OH	450	3000	12000	520	3150	338	2560	91	.667	760	1.69	1-Str	PI	Scin	Op	Op	56.45	34.12	32.44	.....	22.03
Ranger	SGV-770C-2A	232	V60	Air	12-4x5⅛	773.0	6.50	162	8.84	(10)	1	1	OH	500	3150	9000	550	3300	350	2560	100	.667	757	1.51	1-Str	PI	Scin	Opt	Op	66.45	34.13	32.44	.....	22.03
Ranger	SGV-770D-1	Pen.	V60	Air	12-4x5⅛	773.0	6.50	175	7.40	(10)	1	1	OH	565	3300	8000	620	3500	395	2900	100/130	.606	855	1.51	1-Str	PI	Scin	Opt	Op	74.92	31.11	33.28	.....	22.03
Ranger	SGV-770D-4	Pen.	V60	Air	12-4x5⅛	773.0	6.50	151	10.12	(10)	1	1	OH	500	3400	22500	575	3400	325	2800	100/130	.458	898	1.79	1-Str	PI	Scin	Opt	Op	77.24	36.75	33.75	.....	22.03
		.....	(2-S	peed	Blower Engi	ne)	.....	155	7.14	.....	.....	.....	.....	515	3400	13500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Warner	Super Scarab 165	214	Rad	Air	7-4⅝x4¼	500.0	6.40	125	No	(5)	1	1	In	165	2100	SL	175	2250	124	1910	73	D	341	2.06	1-SH	FL	Scin	Ecl	HE	13 35/64	37¼	.....	.....	17½
Warner	Super Scarab 185	235	Rad	Air	7-4⅞x4¼	550.0	6.20	123	No	(5)	1	1	In	185	2175	SL	200	2475	139	1978	73	D	344	1.85	1-Hol	FL	Scin	Ecl	EM	13 35/64	37¼	.....	.....	17½
Wright	Cyclone 735C7BA	.....	Rad	Air	7-6⅛x6 5/16	1301.0	6.20	152	7.21	(2)	1	1	In	600	2400	9500	800	2600	420	2200	91/96	.5625	1025	1.71	1-Str	PI	Bos	Opt	EM	48.22	52.15	.....	.....	28.00
		.....	(2-S	peed	Blower Engi	ne)	.....	.....	8.69	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wright	Cyclone 744C7BA	.....	Rad	Air	7-6⅛x6 5/16	1301.0	6.20	152	7.21	(2)	1	1	In	600	2400	9500	800	2600	420	2200	91/96	.5625	1015	1.69	1-Str	PI	Bos	Opt	EM	48.22	52.15	.....	.....	28.00
Wright	Cyclone 736C9HD	.....	Rad	Air	9-6⅛x6⅞	1823.0	6.80	222	7.21	(2)	1	1	In	1275	2500	3500	1425	2700	892	2300	100/130	.5625	1376	1.08	1-Str	PI	ES	Opt	EM	47.69	54.95	.....	.....	30.25
		.....	(2-S	peed	Blower Engi	ne)	.....	.....	8.69	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wright	Cyclone 737C9HD	.....	Rad	Air	9-6⅛x6⅞	1823.0	6.80	222	7.21	(2)	1	1	In	1275	2500	3500	1425	2700	890	2300	100/130	.5625	1376	1.08	1-Str	PI	ES	Opt	EM	47.69	56.91	.....	.....	30.25
		.....	(2-S	peed	Blower Engi	ne)	.....	.....	10.14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wright	Cyclone 740C9HD	.....	Rad	Air	9-6⅛x6⅞	1823.0	6.80	222	7.21	(2)	1	1	In	1275	2500	3000	1425	2700	890	2200	100/130	.5625	1368	1.07	1-Str	PI	ES	Opt	EM	47.69	56.77	.....	.....	30.25
Wright	Cyclone C14BB	.....	Rad	Air	14-6⅛x6 5/16	2603.0	6.90	203	7.06	(5)	1	1	In	L1600	2400	5000	1900	2800	1050	2100	100/130	.5625‡	2045	1.27	1-Str	PI	Bos	Opt	EM	86.08	54.08	.....	.....	28
		.....	(2-S	peed	Blower Engi	ne)	.....	171	10.04	.....	.....	.....	.....	H1350	2400	14800	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wright	Cyclone C18BA	.....	Rad	Air	18-6⅛x6 5/16	3347.0	6.85	197	6.61	(5)	1	1	In	L2000	2400	4800	2200	2800	1400	2300	100/130	.4375	2780	1.39	1-Ben	PI	Scin	Opt	EM	76.26	53.75	.....	.....	38
		.....	(2-S	peed	Blower Engi	ne)	.....	177	8.81	.....	.....	.....	.....	H1800	2400	15000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wright	Cyclone 749C18BD1	.....	Rad	Air	18-6⅛x6 5/16	3347.0	6.50	207	6.46	(2)	1	1	In	2100	2400	5500	2500	2800	1470	2300	100/130	.4375	2884	1.37	1-Ben	PI	Scin	Opt	EM	78.47	55.62	.....	.....	40.75
		.....	(2-S	peed	Blower Engi	ne)	.....	.....	8.67	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wright	Cyclone 951C18BD1	.....	Rad	Air	18-6⅛x6 5/16	3347.0	6.50	207	6.46	(2)	1	1	In	2100	2400	5500	2500	2800	1470	2300	100/130	.4375	2889	1.36	1-Ben	PI	Scin	Opt	EM	78.47	55.62	.....	.....	40.75
		.....	(2-S	peed	Blower Engi	ne)	.....	.....	8.67	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

ABBREVIATIONS FOR AIRCRAFT ENGINES

General

▲—Equipped with SAE #4 flanged propeller shaft, available only on special request.

▲—Equipped with SAE #20 splined propeller shaft.

▼—One engine-driven fuel pump standard equipment with each engine.

(a)—Cooled by fan

(d)—Approved for glider use

Liq—Liquid cooled

Pen—Pending (s)—Also a ratio of .3536

Cylinder Arrangement

Hor—Horizontally opposed

IL—In-Line IV-L—Inverted-In-Line

Rad—Radial

Cylinder Material

(1)—Nickel iron with Aluminum head

(2)—Aluminum with steel liner

(5)—Steel with Aluminum head

(9)—Aluminum with Nyresist iron sleeves

(10)—Steel barrel with aluminum fins cut in aluminum muff and bonded

Valve Location

In—In-head with push rods and rocker arms

OH—Overhead camshaft

Ratings

SL—Sea Level H—High Blower

L—Low Blower

(a)—2400 hp with water injections

(b)—Take-off with high-speed supercharger drive and water injection

Propeller Drive

†—.666 Optional ‡—.4375 Optional

Carburetor Make

Ben—Bendix Fuel Injector

BS—Bendix-Stromberg

MS—Marvel Schebler

OF—Own, fuel injector

SH—Stromberg or Holley

SM—Stromberg or Marvel-Schebler

Str—Stromberg

Carburetor Type

F-FI—Float or fuel-injection

FL—Float

PI—Pressure Injection

▲—Speed density pump

Ignition System Make

Bos—Bosch

DR—Delco-Remy ES—Edison-Splitdorf

Eis—Eisemann Scin—Scintilla

Starter Make

AL—Auto-Lite DR—Delco-Remy

Ecl—Eclipse Opt—Optional

Method of Starting

EM—Electric Motor

HE—Hand Crank or Electric Motor

Opt—Optional

PC—Pulling Cable

PS—Propeller Swing

Engine Manufacturers

(1)—Aircooled Motors Corp.

(2)—Cameron Aero Engine Corp.

(3)—Aviation Mfg. Corp., Lycoming Div.

(4)—Gladden Products Corp.

(5)—Nelson Aircraft Corp.

Mounting

(s)—A longitudinal type mounting is provided by four mounting bosses integral with the crankcase.

(t)—A rear type mounting is provided by four mounting bosses integral with the crankcase sections.

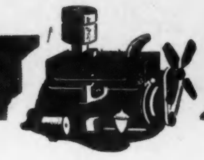
(u)—A rear type mounting is provided by five mounting bosses, 4 of which are integral with the crankcase sections, and the remaining boss is located at the rear of the oil sump.

VM—Model B4 same as B5 except it is mounted vertically for helicopter use.

Line Number	ENGINE MAKE AND MODEL	Designed for	Number of Cylinders, Bore and Stroke (In.)	MAXIMUM BRAKE Hp. at Specified R.P.M.		Piston Displacement (Cu. In.)	Compression Ratio	Maximum Torque at R.P.M. (Lb. Ft.) with or without Accessories	Cylinder Liners—Type	Crankcase—Upper Half Integral with Cylinders	VALVES									
				With Bare Engine	With Standard Accessories						Arrangement	Exhaust Head Material (S.A.E. No.)	Max. Head Diameter (In.)		Min. Port Diameter (In.)		Lift (In.)		Stem Diameter (In.)	
													Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust
1	Allis-Chalmers.....B-15	Tr,Ind	4-3⅜x3½	30-1800	27-1800	125.2	5.75	87-1100 (EA)	W	In	I	Sil	1.43	1.31	1.20	1.03	.378	.378	.344	.344
2	Allis-Chalmers.....W-25	Tr,Ind	4-4x4	44-1800	40-1800	201.1	5.00	128-1200 (EA)	W	In	I	Sil	1.68	1.50	1.50	1.32	.376	.376	.372	.372
3	Allis-Chalmers.....U-40	Tr,Ind	4-4½x5	56-1400	51-1400	318.1	4.75	200- 900 (EA)	W	In	I	Sil	2.03	1.78	1.75	1.50	.375	.375	.372	.372
4	Allis-Chalmers.....E-60	Tr,Ind	4-5¼x6½	81-1050	74-1050	562.8	5.20	400- 650 (EA)	W	In	I	Sil	2.00	2.00	2.00	2.00	.440	.417	.500	.500
5	Allis-Chalmers.....L-90	Tr,Ind	6-5¼x6½	121-1050	110-1050	844.3	5.20	590- 650 (EA)	W	In	I	Sil	2.21	2.21	2.00	2.00	.440	.417	.500	.500
6	Autocar.....377	T	6-4x5	119-2800	.....	377.0	5.85	292-1400 (BE)	N	Se	L	Sil X10	1.90	1.78	1.68	1.56	.406	.408	.437	.437
7	Autocar.....447	T	6-4¼x5¼	145-2700	.....	447.0	6.25	352-1300 (BE)	N	Se	L	Sil X10	2.12	1.93	1.93	1.79	.452	.452	.437	.437
8	Autocar.....501	T	6-4½x5¼	165-2700	.....	501.0	6.25	402-1100 (BE)	N	Se	L	Sil X10	2.12	1.93	1.93	1.79	.452	.452	.437	.437
9	Brennan.....20	Ind	4-2¼x3½	20-3900	15-3900	50.0	7.40	34-3200 (EA)	N	Se	L	Sil	1.12	1.00	.875	.875	.250	.250	.312	.312
10	Brennan.....Imp. De Luxe Spec.	M	4-2¼x3½	25-4000	20-4000	50.0	7.40	34-3200 (EA)	N	Se	I	Sil	1.12	1.00	.875	.875	.250	.250	.312	.312
11	Brennan.....75	T,In	6-3¼x4⅝	90-3500	75-3300	230.3	6.7	175-1000 (EA)	N	In	L	Sil	1.50	1.50	1.37	1.25	.343	.343	.312	.312
12	Brennan.....Ned	M	6-3¼x4⅝	95-3200	92-3200	230.3	5.50	184-1250.....	N	In	L	Sil	1.50	1.37	1.37	1.25	.343	.343	.312	.312
13	Brennan.....M-4	M	4-4x5	45-1800	38-1800	251.0	5.00	155-1000 (EA)	N	Se	L	NCI	.....	.....	.....	.....	.....	.....	.....	.....
14	Brennan.....CE	Ind	4-4½x5	54-1600	45-1600	318.0	5.00	203-1000 (EA)	N	Se	L	Sil	2.00	2.00	1.87	1.87	.375	.375	.375	.375
15	Brennan.....E-4	M	4-4½x5	54-1600	45-1600	318.0	5.00	203-1000 (EA)	N	Se	L	Sil	2.00	2.00	1.87	1.87	.375	.375	.375	.375
16	Brennan.....B-70	T,B,Tr,Ind	6-4x5½	90-2000	75-2000	415.0	4.50	278-900 (EA)	N	Se	I	Sil	2.12	2.12	2.00	2.00	.375	.375	.437	.437
17	Brennan.....100	M	6-4x5½	94-2800	80-2000	415.0	6.00	278-900 (EA)	N	Se	I	Sil	2.12	2.12	2.00	2.00	.375	.375	.437	.437
18	Brennan.....B-100	T,B,Tr,Ind	6-4¼x5½	94-2000	80-2000	496.0	4.50	350-1200 (EA)	N	Se	I	Sil	2.12	2.12	2.00	2.00	.375	.375	.437	.437
19	Brennan.....125	M	6-4⅜x5½	110-2200	94-2200	496.0	6.00	350-1200 (EA)	N	Se	I	Sil	2.12	2.12	2.00	2.00	.375	.375	.437	.437
20	Brennan.....150	M	6-4½x6½	150-2000	130-2000	629.3	6.00	500-1200 (EA)	N	Se	I	Sil	2.50	2.50	2.12	2.12	.437	.437	.500	.500
21	Bridgeport.....F-5	M	1-3¾x4½	.....	6-1200	49.0	5.5	.....	N	In	I	Sil	1.50	1.50	.....	.....	.....	.....	.312	.312
22	Bridgeport.....71	M	1-5½x6½	.....	10- 600	154.0	3.4	.....	N	Se	L	NCI	2.25	2.25	2.00	2.00	.....	.....	.500	.500
23	Bridgeport.....F-10	M	2-3¾x4½	.....	12-1200	99.0	5.5	.....	N	In	I	Sil	1.50	1.50	.....	.....	.....	.....	.312	.312
24	Bridgeport.....162	M	2-5½x6½	.....	20- 650	308.0	3.4	.....	N	Se	L	NCI	2.25	2.25	2.00	2.00	.....	.....	.500	.500
25	Bridgeport.....Pilot	M	4-4¼x5	.....	55-2000	283.0	2.9	25-2000 (EA)	N	In	L	Sil	1.87	1.87	1.62	1.62	.....	.....	.375	.375
26	Bridgeport.....304	M	4-5½x6½	.....	45- 700	617.0	3.4	.....	N	Se	L	NCI	2.25	2.25	2.00	2.00	.....	.....	.500	.500
27	Bridgeport.....404	M	4-6½x7½	.....	65- 600	995.0	2.6	.....	N	Se	L	NCI	2.37	2.37	2.00	2.00	.....	.....	.500	.500
28	Buda.....HP-326	T,B,Tr,Ind	6-3⅛x4¾	78-2400	66-2400	326.0	5.40	188-1000 (EA)	N	In	L	2112	1.65	1.53	1.50	1.37	.344	.344	.372	.372
29	Buda.....HP-351	T,Tr,Ind	6-3⅛x5⅛	84-2400	71-2400	351.0	5.83	201-1000 (EA)	N	In	L	2112	1.65	1.53	1.50	1.37	.344	.344	.372	.372
30	Buda.....K-428	T,B,Tr,Ind	6-4⅜x4¾	107-2400	95-2400	428.0	5.33	296-1100 (EA)	N	In	L	2112	1.90	1.78	1.75	1.62	.400	.400	.372	.372
31	Buda.....L-525	T,Tr,Ind	6-4½x5½	113-2400	94-2400	525.0	4.75	340- 800 (EA)	N	In	L	2112	1.90	1.78	1.75	1.62	.400	.400	.372	.372
32	Buda.....LO-525	T,B,Tr,Ind	6-4½x5½	157-2400	139-2400	525.0	5.00	396-1200 (EA)	N	In	I	2112	1.96	1.68	1.75	1.50	.468	.468	.372	.372
33	Buda.....JL-1335	Ind	6-6¼x7¼	164-1000	140-1000	1334.6	4.40	780-600 (EA)	N	Se	L	2112	2.93	2.93	2.50	2.50	.438	.438	.497	.497
34	Buda.....PC-1879	Ind	6-6¾x8¾	232-1000	197-1000	1879.0	4.50	1110-750 (EA)	W	In	I	2112	2.71	2.53	2.50	2.28	.703	.703	.558	.558
35	Buda.....PCG-1879	Ind	6-6¾x8¾	232-1000	197-1000	1879.0	.....	1200-750 (EA)	W	In	I	2112	2.71	2.53	2.50	2.28	.703	.703	.558	.558
36	Buda.....PCS-1879	Ind	6-6¾x8¾	340-1200	310-1200	1879.0	.....	1410- 950 (EA)	W	In	I	2112	2.71	2.53	2.50	2.28	.703	.703	.558	.558
37	Buda.....6-MO-970	T,Ind,M	6-5⅝x6½	172-1400	147-1400	970.0	5.43	545-1000	W	In	I	2112	2.64	2.02	2.37	1.87	.540	.540	.433	.433
38	Buda.....6-MO-893	T,Ind,M	6-5⅝x6	199-2000	170-2000	893.0	5.50	490-1000	W	In	I	2112	2.64	2.02	2.37	1.87	.540	.540	.433	.433
39	Buda.....4MO-645	Tr,Ind	4-5⅝x6½	123-1400	110-1400	645.0	5.43	510-1000.....	W	In	I	2112	2.64	2.02	2.37	1.87	.540	.540	.437	.437
40	Buda.....4B-153	T,Tr,Ind	4-3⅞x4½	47-2800	42-2800	153.0	6.00	108-1000.....	N	In	I	2112	1.50	1.28	1.37	1.12	.429	.429	.312	.312
41	Buda.....4B-182	T,Tr,Ind	4-3⅞x4⅛	54-2800	49-2800	182.0	5.54	126-1200.....	N	In	I	2112	1.50	1.28	1.37	1.12	.429	.429	.312	.312
42	Buda.....6B-230	T,Tr,Ind	6-3⅞x4⅛	72-3000	65-3000	230.0	6.00	164-1000.....	W	In	I	2112	1.50	1.28	1.37	1.12	.429	.429	.312	.312
43	Buda.....6B-273	T,Tr,Ind	6-3⅞x4⅛	82-2800	75-2800	273.0	5.40	191-1000.....	N	In	I	2112	1.50	1.28	1.37	1.12	.429	.429	.312	.312
44	Buffalo.....RA-4	M,Ind	4-5[illegible]x7	120-1200	110-1200	759.0	4.60	525-1200 (EA)	N	Se	I	Sil	3.09	2.84	2.87	2.62	.540	.540	.500	.500
45	Buffalo.....RAB-4	M,Ind	4-6[illegible]x7	145-1200	130-1200	929.0	5.00	635-1200 (EA)	N	Se	I	Sil	3.09	2.84	2.87	2.62	.625	.540	.500	.500
46	Buffalo.....RA-6	M,Ind	6-5[illegible]x7	180-1200	160-1200	1138.0	4.60	790-1200 (EA)	N	Se	I	Sil	3.09	2.84	2.87	2.62	.540	.540	.500	.500
47	Buffalo.....RAB-6	M,Ind	6-6[illegible]x7	215-1200	195-1200	1393.0	5.00	955-1200 (EA)	N	Se	I	Sil	3.09	2.84	2.87	2.62	.625	.540	.500	.500
48	Buffalo.....RA-8	M,Ind	8-5[illegible]x7	240-1200	220-1200	1518.0	4.60	1050-1200 (EA)	N	Se	I	Sil	3.09	2.84	2.87	2.62	.540	.540	.500	.500
49	Buffalo.....RAB-8	M,Ind	8-6½x7	300-1200	270-1200	1859.0	5.00	1275-1200 (EA)	N	Se	I	Sil	3.09	2.84	2.87	2.62	.625	.540	.500	.500
50	Buffalo.....RABV-12	Ind	12-6½x7	430-1200	390-1200	2787.0	5.00	1910-1200 (EA)	W	In	I-V	Sil	2.46	2.25	2.25	2.00	.437	.437	.437	.437
51	Buffalo.....RABV-16	Ind	16-6½x7	570-1200	515-1200	3716.0	5.00	2550-1200 (EA)	W	In	I-V	Sil	2.46	2.25	2.25	2.00	.437	.437	.437	.437
52	Chevrolet.....1946	T,B	6-3[illegible]x3[illegible]	90-3300	80-3000	235.5	6.62	179-1000 (EA)	N	In	I	AS	1.64	1.46	1.25	1.20	.294	.312	.341	.340
53	Chevrolet.....1946	C,T,B	6-3½x3¾	90-3300	81.5-3100	216.5	6.50	168-1100 (EA)	N	In	I	AS	1.64	1.46	1.25	1.20	.294	.312	.341	.340
54	Chris-Craft.....*B	M	4-3½x4	[illegible]	60-3200	132.7	7.50	108-2400 (EA)	N	In	L	CNS	1.50	1.37	1.25	1.12	.312	.312	.310	.310
55	Chris-Craft.....*'K	M	6-3[illegible]x4½	.....	95-3200	229.7	7.35	173-1800 (EA)	N	In	L	CNS	1.60	1.39	1.46	1.25	.312	.312	.310	.310
56	Chris-Craft.....*'M	M	6-4x4¼	.....	130-3000	320.4	7.50	239-2400 (EA)	N	In	L	Sil	1.87	1.78	1.71	1.56	.356	.356	.372	.372
57	Chris-Craft.....*'W	M	6-4¼x4¾	.....	160-3000	404.3	6.40	322-1500 (EA)	N	In	L	AUS	2.06	1.87	1.81	1.62	.388	.388	.372	.372
58	Chris-Craft.....KB	M	6-3[illegible]x4⅛	.....	121-3800	229.7	7.75	179-2800 (EA)	N	In	L	CNS	1.61	1.39	1.47	1.25	.312	.312	.310	.310
59	Chris-Craft.....MB	M	6-4x4¼	.....	145-3400	320.4	8.15	246-1700 (EA)	N	In	L	Sil	1.87	1.78	1.72	1.56	.356	.356	.372	.372
60	Chrysler.....Ace-M18	M	6-3¼x4⅜	.....	92-3200	217.7	6.60	178-1600 (EA)	N	In	L	XCR	1.53	1.41	1.28	1.28	.371	.369	.340	.340
61	Chrysler.....Ace-M28	M	6-3¼x4⅜	.....	92-3200	217.7	6.60	178-1600 (EA)	N	In	L	XCR	1.53	1.41	1.28	1.28	.371	.369	.340	.340
62	Chrysler.....Crown-M17	M	6-3[illegible]x4½	.....	115-3200	250.6	6.80	205-1600 (EA)	N	In	L	XCR	1.72	1.53	1.43	1.37	.379	.361	.340	.340
63	Chrysler.....Crown-M27	M	6-3[illegible]x4½	.....	115-3200	250.6	6.80	205-1600 (EA)	N	In	L	XCR	1.72	1.53	1.43	1.37	.379	.361	.340	.340
64	Chrysler.....Royal-M18	M	8-3¼x4⅞	.....	141-3200	323.5	6.80	268-1600 (EA)	N	In	L	XCR	1.53	1.35	1.40	1.22	.371	.369	.340	.340
65	Chrysler.....Royal-M28	M	8-3¼x4⅞	.....	141-3200	323.5	6.80	268-1600 (EA)	N	In	L	XCR	1.53	1.35	1.40	1.22	.371	.369	.340	.340
66	Climax.....N4B	Ind	4-5¾x8½	102-1200	90-1200	675.0	4.30	490-700 (EA)	N	In	I	Sil	2.50	2.50	2.25	2.25	.500	.500	.562	.562
67	Climax.....R41	Ind	4-6x7	123-1200	112-1200	791.6	4.70	525-750 (EA)	N	Se	I	Sil	2.50	2.50	2.25	2.25	.500	.500	.562	.562
68	Climax.....R61	Ind	6-6x7	183-1200	165-1200	1187.4	4.70	802-700 (EA)	N	Se	I	CNS	2.50	2.50	2.25	2.25	.500	.500	.562	.562
69	Climax.....R81	Ind	8-6x7	245-1200	221-1200	1583.2	4.70	1085-750 (EA)	N	Se	I	Sil	2.50	2.50	2.25	2.25	.500	.500	.562	.562
70	Climax.....V-425	Ind	12-6½x7	425-1200	380-1200	2787.0	4.90	2120-750	W	Se	I	Sil	2.81	2.68	2.50	2.37	.687	.687	.562	.562
71	Climax.....V-495	Ind	12-7x7	495-1200	445 1200	3232.0	4.90	2460-750	W	Se	I	Sil	2.81	2.68	2.50	2.37	.687	.687	.562	.562
72	Climax.....V-280	Ind	8-6½x7	280-1200	255-1200	1860.0	4.90	1350-800.....	W	Se	I	Sil	2.81	2.69	2.50	2.37	.687	.687	.562	.562
73	Climax.....V-330	Ind	8-7x7	330-1200	295-1200	2155.0	4.90	1570-800	W	Se	I	Sil	2.81	2.68	2.50	2.37	.687	.687	.562	.562
74	Continental.....N-62	Ind	4-2⅝x3½	16-2200	.....	62.0	5.40	43-1600 (BE)	N	In	L	XCR	.895	.895	.750	.750	.187	.187	.312	.312
75	Continental.....Y-69	Ind	4-2½x3½	20-2600	.....	68.7	4.90	47-1400 (BE)	N	In	L	Aus	1.20	1.01	1.06	.875	.296	.281	.314	.313
76	Continental.....Y-4069	Tr	4-2½x3½	27-3000	.....	68.7	6.70	51-2000 (BE)	N	In	L	Aus	1.20	1.01	1.06	.875	.296	.281	.314	.313
77	Continental.....Y-91	Ind	4-2⅞x3½	28-2600	.....	90.9	4.50	67-1400 (BE)	N	In	L	Aus	1.20	1.01	1.06	.875	.296	.281	.314	.313
78	Continental.....Y-4091	C,Tr	4-2⅞x3½	35-3000	.....	90.9	6.10	70-1600 (BE)	N	In	L	Aus	1.20	1.01	1.06	.875	.296	.281	.314	.313
79	Continental.....Y-112	Ind	4-3[illegible]x3½	31-2600	.....	111.7	5.90	81-1400 (BE)	N	In	L	Aus	1.20	1.01	1.06	.875	.296	.281	.314	.313

(For abbreviations see pages 154 and 156)

GASOLINE ENGINES



Valves — Seats — Angle (Deg.)	Valves — Seats — Inserts Used?	Valves — Seats — Insert Material (S.A.E. No.)	Camshaft Drive—Type	Pistons — Material	Pistons — Weight with Pins, Rings, Bushings (Oz.)	Pistons — Piston Pin—Diameter and Length (In.)	Number of Rings per Piston	Connecting Rods — Material	Connecting Rods — Center to Center Length (In.)	Connecting Rods — Weight with Bushing and Cap (Oz.)	Crankshaft — Material	Crankshaft — Counter Balance Used	Crankshaft — Crank-Pin — Diameter and Length (In.)	Crankshaft — Main Bearings — Number	Crankshaft — Main Bearings — Diameter and Length (In.) — Front	Crankshaft — Main Bearings — Diameter and Length (In.) — Rear	Oil Pressure to—	Spark Plug—Thread Size	Carburetor — Make	Carburetor — Size	Engine Weight without Carburetor or Ignition (Lb.)	Overall Dimensions (In.) — Width	Overall Dimensions (In.) — Height	Overall Dimensions (In.) — Length	Line Number
45	N	......	HG	CI	42	.813x2.87	4	1040	6½	29	1045	N	1.93x1.43	3	2.25x1.62	2.25x1.50	aceg	14mm	Zen	⅞	360	16 5/16	31⅝	27	1
45	E	TA	HG	CI	67	.989x3.50	4	1040	7½	42	1045	N	2.37x1.75	3	2.43x1.93	2.50x1.75	abceg	14mm	Zen	1	520	23	31⅜	33½	2
30	E	TA	HG	CI	99	1.31x4.06	5	1045	9½	92	1045	N	2.37x2.37	3	2.50x2.31	2.50x2.75	abcdeg	⅞-18	Zen	1¼	985	26	37½	43¾	3
45	E	TA	HG	CI	162	1.50x4.87	4	1040	13	182	1045	N	2.75x3.24	3	3.00x3.50	3.00x4.75	abcdeg	⅞-18	Zen	1½	2020	27	47⅞	53	4
45	E	TA	HG	CI	162	1.50x4.87	4	1040	13	182	1945	N	2.75x3.24	4	3.00x3.50	3.00x4.75	abcdeg	⅞-18	Zen(2)	1½	2810	29¾	63 3/16	72½	5
45	E	71360	HG	Al	43	1.12x3.43	4	NE8640	10⅛	65	CS	Y	2.37x1.44	7	3.25x1.87	3.25x2.60	abcde	18 mm	Zen	1½	1230	27½	41	45	6
45	E	71360	HG	Al	51	1.12x3.68	4	NE8640	10¼	78	CS	Y	2.50x1.53	7	3.25x1.87	3.25x2.87	abcde	18 mm	Zen	1½	1385	27½	41½	47	7
45	E	71360	HG	Al	57	1.12x3.93	4	NE8640	10¼	78	CS	Y	2.50x1.58	7	3.25x1.87	3.25x2.87	abcde	18 mm	Hol	1¾	1395	27½	41½	47	8
45	N	......	HG	Al	6	.625x2.00	3	1045	5¾	14	1045	Y	1.31x1.25	3	2.50x1.50	2.50x1.50	abcde	14 mm	Zen	¾	128	12¾	17⅝	18¾	9
45	N	......	HG	Al	6	.625x2.00	3	1045	5¾	14	1045	N	1.31x1.25	3	2.50x1.50	2.50x1.50	abcde	....	Zen	11/16	165	12¾	17⅝	29	10
45	Y	TS	Ch	Al	23	.875x2.75	4	2320	7¾	29	1045	Y	2.06x1.25	4	2.50x1.87	2.50x1.87	abce	14 mm	Str	1¼	710	18¾	22	37½	11
45	E	TS	Ch	Al	23	.875x2.75	4	2320	7¾	29	1045	Y	2.06x1.25	4	2.50x1.87	2.50x1.75	abce	14 mm	Str	1¼	710	18¾	22	46½	12
....	......	......	HG	CI	.....	1.17x4.00	4	AS	11	.....	CNS	N	2.56x2.00	3	2.12x4.25	2.12x2.25	abcd	....	Str	1¼	650	12 1/16	19½	53¾	13
45	N	......	HG	SS	80	1.17x4.00	4	1045	11	64	1045	N	2.50x2.50	3	2.50x4.25	2.50x3.50	abcde	....	Str	1¼	600	21	29¾	37⅛	14
45	N	......	HG	SS	72	1.17x4.00	5	1045	11	64	1045	N	2.50x2.50	3	2.50x4.25	2.50x3.50	abcder	....	Str	1¼	950	16	18	53	15
45	N	......	HG	SS	64	1.17x3.87	4	CNS	11	65	CNS	N	2.50x2.00	3	2.75x4.50	2.75x3.00	abce	....	Str	1½	800	25¾	33¾	49	16
45	N	......	HG	SS	64	1.17x3.87	4	AS	.....	.....	CNS	N	2.50x2.00	3	2.75x4.50	2.75x3.00	abcdeg	....	Str	1½	800	19¾	24¾	65	17
45	N	......	HG	SS	76	1.25x3.87	5	CNS	11	65	CNS	N	2.50x2.00	3	2.75x4.50	2.75x3.00	abce	....	Str	1½	875	25¾	33¾	49	18
45	N	......	HG	SS	70	1.25x3.87	5	AS	11	65	CNS	N	2.50x2.00	3	2.75x4.50	2.75x4.50	abcdeg	....	Str	1½	900	19¾	24¾	65	19
45	N	......	BG	SS	72	1.37x4.00	5	AS	12	80	CNS	Y	2.62x2.67	7	2.62x5.00	2.62x3.50	abcd	....	Str	1¾	1450	20	30	74	20
45	N	......	SG	CI	.....	.750x3.37	3	DFS	.....	.....	......	Y	1.37x1.50	2	1.37x2.50	1.37x2.50	Splash	⅞-18	....	1	204	13	24	30	21
45	N	......	SG	CI	124	1.25x5.25	5	DFS	12½	136	......	N	2.00x3.00	2	2.00x3.00	2.00x5.50	Splash	⅞-18	....	1¼	510	20	34	47	22
45	N	......	HG	CI	.....	.750x3.37	..	DFS	.....	.....	......	Y	1.37x1.50	2	1.37x1.50	1.37x2.50	Splash	⅞-18	....	1¼	308	13	25	33	23
45	N	......	HG	CI	124	1.25x5.25	5	DFS	12½	136	......	N	2.00x3.00	3	2.00x5.50	2.00x5.50	ML	⅞-18	....	1¼	1010	20	35	56	24
45	Bo	AS	HG	CI	64	1.37x3.50	4	DFS	9½	56	......	N	2.00x2.25	3	2.00x3.00	2.00x3.25	abcde	⅞-18	....	1¼	920	17	28½	53	25
45	N	......	HG	CI	124	1.25x5.25	5	DFS	12½	136	......	N	2.00x3.00	5	2.00x5.50	2.00x5.50	ML	⅞-18	....	1½	1700	20	35	76	26
45	N	......	HG	CI	272	1.50x6.00	5	DFS	15½	208	......	N	2.37x3.00	5	2.37x6.00	2.37x6.00	ML	⅞-18	....	1½	2400	21	40	87	27
45	E	DC	HG	CI	42	1.12x3.25	4	CS	9½	42	CS	N	2.12x1.62	7	3.00x1.50	3.00x2.12	abcde	18 mm	Zen	1½	885	25¾	33 1/16	39 25/32	28
45	E	DC	HG	CI	42	1.12x3.25	4	CS	9½	42	CS	N	2.12x1.62	7	3.00x1.50	3.00x2.12	abcde	18 mm	Zen	1½	905	25¾	33 1/16	39 25/32	29
45	E	DC	HG	Al	68	1.25x3.82	4	CS	9½	58	CS	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	18 mm	Zen	1¾	905	25¾	30 11/32	47 9/32	30
45	E	DC	HG	CI	88	1.25x3.81	4	CS	11	66	CS	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	18 mm	Zen	1¾	950	25¾	33 7/32	47 9/32	31
30	E	JM	HG	Al	88	1.25x3.81	5	AS	11	78	CS	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcdeg	14 mm	Zen	1¾	1195	27 9/16	38 21/32	49⅜	32
30	E	DC	HG	CI	199	2.00x5.33	4	AS	15¼	239	CS	Y	3.50x3.31	4	3.50x4.75	3.50x4.75	abcde	⅞-18	Zen	2	3700	28⅝	43	74 9/16	33
45	E	DC	HG	Ala	263	2.75x5.53	5	CS	17¾	430	CS	Y	4.25x3.25	7	4.50x2.68	3.75x3.48	abcdeg	18 mm	Zen(2)	2	9000	48	48 5/16	86 5/32	34
45	E	DC	HG	Ala	263	2.75x5.53	5	CS	17¾	430	CS	Y	4.25x3.25	7	4.50x2.68	3.75x3.48	abcdeg	18 mm	Ens	2	9000	48	68 5/16	88 5/32	35
45	E	DC	HG	Al	263	2.75x5.53	5	1035	17¾	430	1045	N	4.25x3.25	7	4.50x2.68	4.50x3.48	abcde	18 mm	Ens	2	.....	.....	.....	.....	36
30	E	Jad	HG	CI	152	1.75x4.75	5	1040	12½	171	1045	N	3.25x2.12	7	3.75x3.75	3.75x2.75	abcdeg	14 mm	Zen	2	2400	48¼	58⅛	58⅛	37
30	E	Jad	HG	CI	152	1.75x4.75	5	1040	12½	171	1045	N	3.25x2.12	7	3.75x3.00	3.75x2.75	abcdeg	14 mm	Zen	2	2400	28½	48¼	58⅛	38
30	E	Jad	HG	CI	152	1.75x4.75	5	1040	12½	171	1045	N	3.25x2.12	5	3.75x3.00	3.75x2.75	abcdeg	14 mm	Zen	2	1925	30 3/16	48¼	44⅛	39
45	N	......	HG	CI	.....	1.00x2.84	4	CS	7⅜	.....	1045	N	2.00x1.31	3	2.50x1.25	2.50x1.75	abcdeg	14 mm	Zen	1	500	18 3/16	26⅞	30 3/16	40
45	N	......	HG	CI	.....	1.00x3.09	4	CS	7⅜	.....	1045	N	2.00x1.31	3	2.50x1.25	2.50x1.75	abcdeg	14 mm	Zen	1¼	520	18 3/16	26⅞	30 3/16	41
45	N	......	HG	CI	.....	1.00x....	4	1045	7⅜	.....	1045	N	2.00x1.31	7	2.50x1.25	2.50x1.75	abcdeg	14 mm	Zen	1	625	18 3/16	26⅞	38 3/16	42
45	N	......	HG	CI	.....	1.00x3.09	4	1045	7⅜	.....	1045	N	2.00x1.31	7	2.50x1.25	2.50x1.75	abcdeg	14 mm	Zen	1¼	635	18 3/16	26⅞	38 3/16	43
45	E	SA	HG	Al	132	1.50x5.62	5	3135	14	147	3140	Y	3.00x2.37	5	3.75x4.12	3.75x4.50	abce	⅞-18	Zen	2½	2500	24	46	78	44
45	E	SA	HG	Al	154	1.68x6.25	5	3135	14	147	3140	Y	3.00x2.37	5	3.75x4.12	3.75x4.50	abe	⅞-18	Zen	2½	2700	24	46	78	45
45	E	SA	HG	Al	132	1.50x5.62	5	3135	14	147	3140	Y	3.00x2.37	7	3.75x4.12	3.75x4.50	abe	⅞-18	Zen(2)	2	3000	24	46	94	46
45	E	SA	HG	Al	154	1.68x6.25	5	3135	14	147	3140	Y	3.00x2.37	7	3.75x4.12	3.75x4.50	abe	⅞-18	Zen(2)	2	3200	24	46	94	47
45	E	SA	HG	Al	132	1.50x5.62	5	3135	14	147	3140	Y	3.00x2.37	9	3.75x4.12	3.75x4.50	abe	⅞-18	Zen(2)	2½	4000	24	46	111	48
45	E	SA	HG	Al	154	1.68x6.25	5	3135	14	147	3140	Y	3.00x2.37	9	3.75x4.12	3.75x4.50	abe	⅞-18	Zen(2)	2½	4300	24	46	111	49
45	E	WM	HG	AL	171	2.00x5.87	5	3140	14	173	4140	Y	3.75x2.00	7	4.25x3.25	4.25x3.25	abeg	18 mm	Zen(3)	2	6200	43	66	83½	50
45	E	WM	HG	AL	171	2.00x5.87	5	3140	14	173	4140	Y	3.75x2.00	9	4.25x3.25	4.25x3.25	abeg	18 mm	Zen(4)	2	8400	43	66	104	51
30	N	......	HG	CI	39	.864x3.15	3	DFS	6 11/16	31	DFS	Y	2.31x1.5	4	2.69x1.19	2.78x1.62	abcg	10 mm	Car	1 1/16	560	21	29¾	39.14	52
30	N	......	HG	CI	33¾	.864x3.15	3	DFS	6 11/16	31	DFS	Y	2.31x1.5	4	2.69x1.19	2.78x1.62	abcg	10 mm	Car	1¼	554	21	29¾	39.14	53
30	N	......	HG	Alt	21	.750x2.87	3	3140	6 9/16	22	1045	N	1.75x1.12	3	1.98x1.62	1.98x1.62	abr	14 mm	Zen	1¼	456*	24⅛	23 1/16	31 11/16	54
30	N	......	HG	Ala	25	.875x2.87	3	1035	7	29	1045	N	1.98x1.12	7	2.49x1.93	2.49x1.37	abr**	14 mm	Zen	1⅜	626*	24⅛	25½	40	55
30	N	......	HG	Ala	36	1.00x3.50	3	1040	8	40	1045	N	1.98x1.50	7	2.49x2.12	2.49x1.37	abr	14 mm	Zen	1¾	850*	26 3/16	27 1/32	46 3/16	56
30	N	......	HG	Ala	44	1.12x3.68	4	3140	8⅞	52	1045	Y	2.24x1.50	7	2.62x2.75	2.62x1.75	abfr	14 mm	Zen	2	1232*	26⅞	29 1/16	53 1/16	57
30	N	......	HG	Ala	25	.875x2.87	3	1035	7	29	1045	N	1.98x1.12	7	2.49x1.83	2.49x1.37	abr	14 mm	Zen(3)	1½	626*	24 11/16	31 1/16	40	58
30	E	St	HG	Ala	36	1.00x3.50	3	1040	8	40	1045	N	1.98x1.50	7	2.49x2.12	2.49x1.37	abr	14 mm	Zen(2)	2	850*	26 3/16	27 1/32	46 3/16	59
45	E	CMT	Ch	Al	.....	.859x2.73	4	1335	7.933	.....	1040	Y	2.06x1.24	4	2.50x1.44	2.50x1.87	abce	14 mm	Zen	1¼	......	22½	24⅝	46 11/16	60
45	E	CMT	HG	Al	.....	.859x2.73	4	1335	7.933	.....	1040	Y	2.06x1.24	4	2.50x1.44	2.50x1.87	abce	14 mm	Zen	1¼	......	22½	24⅝	43 11/32	61
45	E	CMT	Ch	Al	.....	.859x2.73	4	1335	7.871	.....	1040	Y	2.12x1.37	4	2.50x1.59	2.50x1.87	abce	14 mm	Zen	1½	......	22½	25⅛	49 3/32	62
45	E	CMT	HG	Al	.....	.859x2.73	4	1335	7.871	.....	1040	Y	2.12x1.37	4	2.50x1.59	2.50x1.87	abce	14 mm	Zen	1 11/32	......	22½	25⅛	46 7/32	63
45	E	CMT	Ch	Al	.....	.859x2.73	4	1335	8.996	.....	1040	Y	2.18x1.37	5	2.70x1.78	2.70x2.09	abce	14 mm	Zen	1¾	......	22½	26⅛	58 1/16	64
45	E	CMT	HG	Al	.....	.859x2.73	4	1335	8.996	.....	1040	Y	2.18x1.37	5	2.70x1.78	2.70x2.09	abce	14 mm	Zen	1¾	......	22½	26⅛	54⅞	65
45	E	CI	HG	CI	189	1.48x5.25	4	1035	14	194	1045	N	3.00x3.00	3	3.25x3.50	3.25x4.75	abceg	⅞-18	Zen	1¾	1800	30½	46	53¼	66
45	E	CI	HG	Al	153	1.49x5.37	4	3135	16	244	4140	N	3.00x3.50	3	3.25x3.81	3.25x4.50	abceg	⅞-18	Zen	2	2300	31 1/16	49½	57 3/16	67
45	E	CI	HG	Al	153	1.49x5.37	4	3135	16	244	4140	Y	3.00x3.50	4	3.25x3.81	3.25x4.50	abceg	⅞-18	Zen(2)	1¾	3200	29⅛	51⅝	73 11/16	68
45	E	CI	HG	Al	153	1.49x5.37	4	3135	16	244	4140	N	3.37x3.18	5	4.00x3.62	4.00x4.50	abceg	⅞-18	Zen(2)	2	4500	35 1/16	56 11/16	97⅞	69
45	E	NCI	HG	Al	165	2.00x5.75	5	3135	16	276	4140	N	4.00x5.00	7	4.50x3.75	4.50x5.50	abcdeg	18 mm	Zen(4)	2	11000	51	55	95	70
45	E	NCI	HG	Al	176	2.00x5.75	5	3135	16	276	4140	N	4.00x5.00	7	4.50x3.75	4.50x5.50	abcdeg	18 mm	Zen(4)	2	11200	51	55	95	71
45	E	NCI	HG	Al	165	2.00x5.75	5	3135	16	276	4140	N	4.00x5.00	5	4.50x3.75	4.50x5.50	abcdeg	18 mm	Zen(2)	2	8200	51	58	72¼	72
45	E	NCI	HG	Al	176	2.00x5.75	5	3135	16	276	4140	N	4.00x5.00	5	4.50x3.75	4.50x5.50	abcdeg	18 mm	Zen(2)	2	8200	51	58	72¼	73
(h)	N	......	......	CI	.....	.546x1.90	3	1035	5¾	.....	DFS	N	....	..	2.00x	2.00x1.25	....	18 mm	....	⅞	170	16	19	19	74
(h)	N	......	HG	CI	.....	.703x2.06	3	1030	5¾	.....	DFS	N	1.50x1.18	3	1.75x1.37	1.75x1.78	abcet	18 mm	....	1	265	26	22 11/16	25½	75
(h)	N	......	HG	CI	.....	.703x2.06	3	1030	5¾	.....	DFS	N	1.50x1.18	3	1.75x1.37	1.75x1.78	abcet	18 mm	....	1	290	26	22 11/16	25½	76
(h)	N	......	HG	CI	.....	.703x2.44	3	1030	5¾	.....	DFS	N	1.50x1.18	3	1.75x1.37	1.75x1.78	abcet	18 mm	....	1	265	26	22 11/16	25½	77
(h)	N	......	HG	CI	.....	.703x2.44	3	1030	5¾	.....	DFS	N	1.50x1.18	3	1.75x1.37	1.75x1.78	abcet	18 mm	....	1	290	26	22 11/16	25½	78
(h)	N	......	HG	CI	.....	.703x2.75	3	1030	5¾	.....	DFS	N	1.50x1.18	3	1.75x1.28	1.75x1.65	abcet	18 mm	....	1	265	26	22 11/16	25½	79

(For abbreviations see pages 154 and 155)

Line Number	ENGINE MAKE AND MODEL	Designed for	Number of Cylinders, Bore and Stroke (in.)	MAXIMUM BRAKE Hp. at Specified R.P.M.		Piston Displacement (Cu. In.)	Compression Ratio	Maximum Torque at R.P.M. (Lb. Ft.) with or without Accessories	Cylinder Liners—Type	Crankcase—Upper Half Integral with Cylinders	VALVES									
				With Bare Engine	With Standard Accessories						Arrangement	Exhaust Head Material (S.A.E. No.)	Max. Head Diameter (In.)		Min. Port Diameter (In.)		Lift (In.)		Stem Diameter (In.)	
													Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust
1	Continental Y-4112	C,Tr	4-3 3/4 x3 1/2	45-3000	.....	111.7	6.10	86-2200 (BE)	N	In	L	Aus	1.20	1.01	1.06	.875	.296	.281	.314	.313
2	Continental F-124	Ind	4-3x4 3/8	36-2400	.....	123.7	4.10	91-1200 (BE)	N	...	L	Aus	1.51	1.32	1.37	1.18	.281	.281	.341	.339
3	Continental F-4124	C,T,Tr	4-3x4 3/8	46-3000	.....	123.7	6.50	86-1400 (BE)	N	In	L	Aus	1.51	1.32	1.37	1.18	.281	.281	.341	.339
4	Continental G-134	Ind	4-3 1/16 x4 3/8	33-2400	.....	134.0	4.80	104-1000 (BE)	W	...	Oh	XCR	1.32	1.20	1.18	1.09	.312	.312	.343	.343
5	Continental F-140	Ind	4-3 1/16 x4 3/8	42-2400	.....	139.6	4.40	104-1200 (BE)	N	In	L	Aus	1.51	1.32	1.37	1.18	.281	.281	.341	.339
6	Continental F-4140	C,T,Tr	4-3 1/16 x4 3/8	52-3000	.....	139.6	6.30	108-1400 (BE)	N	In	L	Aus	1.51	1.32	1.37	1.18	.281	.281	.341	.339
7	Continental G-157	Ind	4-3 5/16 x4 3/8	39-2400	.....	157.0	4.80	121-1000 (BE)	W	...	Oh	XCR	1.32	1.20	1.18	1.09	.312	.312	.343	.343
8	Continental F-162	Ind	4-3 1/16 x4 3/8	43-2400	.....	162.4	5.00	124- 800 (BE)	N	In	L	Aus	1.51	1.32	1.37	1.18	.281	.281	.341	.339
9	Continental F-4162	C,T,Tr	4-3 1/16 x4 3/8	58-3000	.....	162.4	6.10	122-1600 (BE)	N	In	L	Aus	1.51	1.32	1.37	1.18	.281	.281	.341	.339
10	Continental H-227	Ind	4-3 5/16 x5 1/2	54-2000	.....	227.0	4.70	174-1000 (BE)	W	In	Oh	XCR	1.64	1.45	1.50	1.31	.343	.343	.437	.437
11	Continental H-243	Ind	4-3 3/4 x5 1/2	58-2000	.....	243.0	4.70	186-1000 (BE)	W	In	Oh	XCR	1.64	1.45	1.50	1.31	.343	.343	.437	.437
12	Continental F-186	Ind	6-3x4 3/8	54-2400	.....	185.6	4.20	140-1000 (BE)	N	In	L	Aus	1.51	1.32	1.37	1.18	.298	.296	.341	.339
13	Continental F-6186	C,T,Tr	6-3x4 3/8	59-3000	.....	185.6	6.40	139-1000 (BE)	N	In	L	Aus	1.51	1.32	1.37	1.18	.296	.281	.341	.339
14	Continental F-209	Ind	6-3 1/16 x4 1/2	61-2400	.....	209.4	4.70	155-1000 (BE)	N	In	L	Aus	1.51	1.32	1.37	1.18	.298	.296	.341	.339
15	Continental F-6209	C,T,Tr	6-3 1/16 x4 3/8	70-3000	.....	209.4	6.10	153-1200 (BE)	N	In	L	Aus	1.51	1.32	1.37	1.18	.296	.281	.341	.339
16	Continental F-226	Ind	6-3 1/16 x4 3/8	65-2400	.....	226.0	4.90	169-1000 (BE)	N	In	L	Aus	1.51	1.32	1.37	1.18	.298	.296	.341	.339
17	Continental F-6226	C,T,Tr	6-3 1/16 x4 3/8	72-3000	.....	226.0	6.00	168-1000 (BE)	N	In	L	Aus	1.51	1.32	1.37	1.18	.296	.281	.341	.339
18	Continental M-271	Ind	6-3 5/16 x4 3/8	76-2200	.....	270.9	4.20	198-1200 (BE)	N	In	L	Aus	1.76	1.51	1.62	1.37	.343	.359	.404	.402
19	Continental M-6271	T,B,Tr	6-3 5/16 x4 3/8	89-2800	.....	270.9	6.00	203-1200 (BE)	N	In	L	Aus	1.76	1.51	1.62	1.37	.343	.359	.404	.402
20	Continental K-6271	T,B	6-3 5/16 x4 3/8	105-2800	.....	270.9	.....	216-1200 (BE)	N	...	Oh	Aus	1.76	1.51	1.62	1.37	.375	.375	.406	.406
21	Continental M-290	Ind	6-3 3/4 x4 3/8	81-2200	.....	289.9	4.40	212-1200 (BE)	N	In	L	Aus	1.76	1.51	1.62	1.37	.343	.359	.404	.402
22	Continental M-6290	T,B,Tr	6-3 3/4 x4 3/8	93-2800	.....	289.9	6.00	217-1000 (BE)	N	In	L	Aus	1.76	1.51	1.62	1.37	.343	.359	.404	.402
23	Continental K-6290	T,B	6-3 3/4 x4 3/8	111-2800	.....	289.9	.....	231-1200 (BE)	N	...	Oh	Aus	1.76	1.51	1.62	1.37	.375	.375	.406	.406
24	Continental M-330	Ind	6-4x4 3/8	89-2200	.....	329.9	4.80	248-1000 (BE)	N	In	L	Aus	1.76	1.51	1.62	1.37	.343	.359	.404	.402
25	Continental M-6330	T,B,Tr	6-4x4 3/8	104-2800	.....	329.4	6.10	245-1000 (BE)	N	In	L	Aus	1.76	1.51	1.62	1.37	.343	.359	.404	.402
26	Continental K-6330	T,B	6-4x4 3/8	125-2800	.....	329.4	6.30	264-1200 (BE)	N	...	Oh	Aus	1.76	1.51	1.62	1.37	.375	.375	.406	.406
27	Continental B-371	Ind	6-4 1/16 x4 5/8	97-2200	.....	370.9	5.20	277-1000 (BE)	N	In	L	Aus	1.89	1.64	1.75	1.50	.359	.359	.435	.432
28	Continental B-6371	T,B	6-4 1/16 x4 5/8	100-2600	.....	370.9	6.00	278-1000 (BE)	N	In	L	Aus	1.89	1.64	1.75	1.50	.359	.359	.435	.432
29	Continental T-6371	.....	6-4 1/16 x4 5/8	132-2600	.....	370.9	.....	296-1200 (BE)	N	...	Oh	Aus	2.01	1.64	1.75	1.50	.375	.375	.437	.437
30	Continental B-427	Ind	6-4 1/2 x4 7/8	112-2200	.....	427.1	.....	322- 800 (BE)	N	In	L	Aus	1.89	1.64	1.75	1.50	.359	.359	.435	.432
31	Continental B-6427	T,B,M	6-4 1/2 x4 5/8	127-2600	.....	427.2	5.90	323-1200 (BE)	N	In	L	Aus	1.89	1.64	1.75	1.50	.359	.359	.435	.432
32	Continental T-6427	.....	6-4 1/2 x4 7/8	151-2600	.....	427.2	6.20	340-1200 (BE)	N	...	Oh	Aus	2.01	1.64	1.75	1.50	.375	.375	.437	.437
33	Continental 33-R-501	Ind	6-4 1/16 x5 1/4	128-2000	.....	501.0	4.40	373-1000 (BE)	N	...	Oh	Aus	2.14	1.87	1.81	1.62	.421	.421	.435	.433
34	Continental 22-R	T,B	6-4 1/16 x5 1/4	148-2400	.....	501.0	5.70	387-1200 (BE)	N	In	Oh	Aus	2.14	1.87	1.81	1.62	.421	.421	.435	.433
35	Continental R-513	Ind	6-4 1/2 x5 3/4	140-2000	.....	512.9	5.10	393-1000 (BE)	N	In	Oh	Aus	2.14	1.89	2.00	1.75	.500	.500	.500	.495
36	Continental R-6513	T,B	6-4 1/2 x5 3/4	170-2600	.....	512.9	5.90	400-1200 (BE)	N	In	Oh	Aus	2.14	1.89	1.81	1.75	.500	.500	.500	.495
37	Continental R-572	Ind	6-4 5/8 x5 3/8	156-2000	.....	571.7	5.50	440-1000 (BE)	N	In	Oh	Aus	2.14	1.89	2.00	1.75	.500	.500	.500	.495
38	Continental R-6572	T,B	6-4 3/4 x5 3/8	189-2600	.....	571.7	5.90	440-1200 (BE)	N	In	Oh	Aus	2.09	1.89	2.00	1.75	.500	.500	.500	.495
39	Continental R-602	Ind	6-4 1/2 x5 5/8	164-2000	.....	602.0	5.80	460-1000 (BE)	N	In	Oh	Aus	2.14	1.89	2.00	1.75	.500	.500	.500	.495
40	Continental R-6602	T,B	6-4 1/2 x5 5/8	199-2600	.....	602.0	5.80	464-1200 (BE)	N	In	Oh	Aus	2.14	1.89	2.00	1.75	.500	.500	.500	.495
41	Continental S-749	Ind	6-5 3/8 x5 1/2	217-2200	.....	748.8	6.10	572-1000 (BE)	N	....	Oh	Aus	2.39	2.14	2.25	2.00	.562	.562	.497	.494
42	Continental S-6749	.....	6-5 3/8 x5 1/2	247-2600	.....	748.8	6.10	576-1400 (BE)	N	....	Oh	Aus	2.39	2.14	2.25	2.00	.562	.562	.497	.494
43	Dodge T-112,T-114	T	6-3 1/4 x4 3/8	95-3600	80-3400	217.8	6.80	172-1200 (BE)	N	In	L	Sil	1.53	1.41	1.41	1.28	.379	.379	.340	.340
44	Dodge T-116	T	6-3 1/4 x4 5/8	102-3600	80-3200	230.2	6.70	184-1200 (BE)	N	In	L	Sil	1.53	1.41	1.41	1.28	.379	.379	.340	.340
45	Dodge T-137	T	6-3 1/4 x4 5/8	94-3200	74-2800	230.2	6.70	185-1200 (BE)	N	In	L	Sil	1.53	1.41	1.41	1.28	.379	.379	.340	.340
46	Dodge T-118,T-128	T	6-3 7/16 x4 1/4	109-3600	87-3200	236.6	6.60	192-1200 (BE)	N	In	L	Sil	1.72	1.53	1.56	1.37	.379	.379	.340	.340
47	Dodge T-120,T-130	T	6-3 7/16 x4 1/2	114-3600	97-3200	250.6	6.60	204-1200 (BE)	N	In	L	Sil°(x)	1.72	1.53	1.56	1.37	.379	.379	.340	.43
48	Dodge T-136	T	6-3 3/4 x4 1/4	115-3200	106-3200	281.6	6.50	225-1200 (BE)	N	In	L	Sil°(x)	1.94	1.75	1.78	1.59	.41	.379	.372	.434
49	Dodge T-135	T	6-3 3/4 x5	128-3000	111-2800	331.3	6.50	270-1200 (BE)	N	In	L	Sil°(x)	1.94	1.75	1.78	1.59	.41	.379	.372	.434
50	Ford 59A	C,T,B	8-3 1/16 x3 3/4	100-3800	89-3600	239.4	6.75	180-2000 (BE)	N	In	L	Sil	1.50	1.50	1.34	1.34	.292	.292	.311	.311
51	Ford 5 GA, C,Y,T	.....	6-3.30x4.40	90-3300	.....	226.0	6.70	180-1200 (BE)	N	In	L	.....	1.65	1.51	1.51	1.34	.307	.292	.311	.310
52	G. M. C. 228	T	6-3 1/8 x3 1/2	95-3200	85-3000	228.0	6.75	183-1000 (BE)	N	In	I	CHS	1.64	1.43	1.31	1.16	.323	.331	.341	.340
53	G. M. C. 248	T	6-3 1/4 x3 1/2	100-3100	89-3000	248.5	6.75	202-1000 (BE)	N	In	I	CHS	1.64	1.43	1.31	1.16	.323	.331	.341	.340
54	G. M. C. 270	T	6-3 1/4 x4	104-3000	95-3000	269.5	6.75	222-1000 (BE)	N	In	I	CHS	1.64	1.43	1.31	1.16	.323	.331	.341	.340
55	G. M. C. 308	T	6-3 1/2 x4 1/2	136-3000	100-2800	308.2	6.00	241-1000 (BE)	N	Se	I	CHS	1.81	1.56	1.44	1.37	.390	.390	.372	.371
56	G. M. C. 361	T	6-4 1/16 x4 1/2	122-3200	115-2800	360.8	6.00	273-1000 (BE)	N	Se	I	CHS	1.94	1.72	1.50	1.50	.406	.406	.372	.371
57	G. M. C. 426	T	6-4 1/4 x5	145-2600	127-2400	425.6	6.00	345-1000 (BE)	N	Se	I	CHS	1.94	1.72	1.50	1.50	.406	.406	.372	.371
58	G. M. C. 477	T, B	6-4 1/2 x5	154-2600	135-2400	477.1	6.00	385-1000 (BE)	N	Se	I	CHS	1.94	1.72	1.50	1.50	.406	.406	.372	.371
59	Gray Lugger Sea Scout-91	M	4-2 7/16 x3 1/2	.....	25-2000	91	7.45	.....	N	In	L	Sil	1.20	1.02	1.06	.875	.284	.284	.314	.313
60	Gray Lugger 4-162	M	4-3 7/16 x4 3/8	.....	42-1800	162	6.00	.....	N	In	L	Sil	1.51	1.33	1.37	1.18	.331	.331	.341	.361
61	Gray Lugger 6-226	M	6-3 1/16 x4 3/8	.....	73-2400	226	6.75	.....	N	In	L	Sil	1.51	1.33	1.37	1.18	.284	.284	.341	.340
62	Gray Lugger 6-244	M	6-3 7/16 x4 3/8	.....	83-2400	244	6.22	.....	N	In	L	Sil	1.70	1.42	1.56	1.31	.311	.311	.340	.338
63	Gray Lugger 6-330	M	6-4x4 3/8	.....	96-2400	330	6.00	.....	N	In	L	Sil	1.76	1.51	1.62	1.37	.339	.339	.404	.402
64	Gray Lugger 6-427	M	6-4 1/2 x4 7/8	.....	115-2400	427	5.93	.....	N	In	L	Sil	1.89	1.64	1.75	1.5	.359	.359	.435	.432
65	Gray Express 4-162	M	4-3 7/16 x4 3/8	.....	63-3000	162	6.00	.....	N	In	L	Sil	1.51	1.33	1.37	1.18	.331	.331	.341	.361
66	Gray Express 6-226	M	6-3 1/16 x4 3/8	.....	93-3200	226	6.75	.....	N	In	L	Sil	1.51	1.33	1.37	1.18	.311	.311	.341	.340
67	Gray Express 6-244	M	6-3 7/16 x4 3/8	.....	102-3200	244	6.9	.....	N	In	L	Sil	1.70	1.42	1.56	1.31	.357	.357	.340	.338
68	Gray Express 6-330	M	6-4x4 3/8	.....	124-3200	330	6.5	.....	N	In	L	Sil	1.76	1.51	1.62	1.37	.354	.354	.404	.402
69	Gray Express 6-427	M	6-4 1/2 x4 7/8	.....	150-3200	427	6.73	.....	N	In	L	Sil	1.89	1.64	1.75	1.5	.359	.359	.435	.432
70	Gray Super 6-330	M	6-4x4 3/8	.....	145-3200	330	6.5	.....	N	In	L	Sil	1.76	1.515	1.62	1.37	.354	.354	.404	.402
71	Gray Super 6-427	M	6-4 1/2 x4 7/8	.....	170-3200	427	6.73	.....	N	In	L	Sil	1.89	1.64	1.75	1.5	.359	.359	.435	.432
72	Gray Phantom 4-45	M	4-2 7/8 x3 1/2	.....	45-3600	91	7.45	.....	N	In	L	Sil	1.20	1.02	1.06	.875	.284	.284	.314	.313
73	Gray Phantom 4-75	M	4-3 7/16 x4 3/8	.....	75-3600	162	7.00	.....	N	In	L	Sil	1.64	1.45	1.37	1.18	.331	.331	.341	.339
74	Gray Phantom 6-104	M	6-3 1/16 x4 3/8	.....	104-3600	226	6.75	.....	N	In	L	Sil	1.51	1.33	1.37	1.18	.311	.311	.341	.340
75	Gray Phantom 6-125	M	6-3 7/16 x4 3/8	.....	125-3600	244	6.9	.....	N	In	L	Sil	1.70	1.42	1.56	1.31	.311	.311	.340	.338
76	Gray Fireball 4-50	M	4-2 7/8 x3 1/2	.....	50-4000	91	7.45	.....	N	In	L	Sil	1.203	1.02	1.06	.875	.284	.284	.314	.313
77	Gray Fireball 4-90	M	4-3 7/16 x4 3/8	.....	90-4000	162	8.00	.....	N	In	L	Sil	1.64	1.45	1.16	1.07	.331	.331	.341	.339
78	Gray Fireball 6-140	M	6-3 1/16 x4 3/8	.....	140-4000	244	7.7	.....	N	In	L	Sil	1.70	1.58	1.43	1.31	.360	.360	.340	.371
79	Gray Fireball 6-150	M	6-3 1/16 x4 3/8	.....	150-4000	244	9.1	.....	N	In	L	Sil	1.70	1.58	1.43	1.31	.360	.360	.340	.371
80	Gray Fireball 6-160	M	6-3 7/16 x4 3/8	.....	160-4000	244	9.1	.....	N	In	L	Sil	1.70	1.58	1.43	1.31	.360	.360	.340	.371
81	Gray Racing 91	M	4-2 7/8 x3 1/2	.....	65-4600	91	7.45	.....	N	In	L	Sil	1.33	1.23	1.16	1.07	.284	.284	.314	.313
82	Gray Racing 225	M	6-3.30x4.18	.....	180-5000	225	10.1	.....	N	In	L	Sil	1.70	1.58	1.56	1.43	.360	.360	.340	.371
83	Gray Racing 244	M	6-3 7/16 x4 3/8	.....	190-5000	244	10.1	.....	N	In	L	Sil	1.70	1.58	1.56	1.43	.360	.360	.340	.371
84	Hall-Scott (H) 130	T, B, FA	6-4 1/4 x5	130-3000	107-2800	425.6	4.96	288-1000 (BE)	W	In	I	2112	2.28	2.16	2.12	1.90	.421	.421	.435	.435
85	Hall-Scott (H) 135	T, B, FA	6-4 1/2 x5	145-2800	122-2800	477.1	5.50	340-1000 (BE)	W	In	I	2112	2.28	2.16	2.12	1.90	.421	.421	.435	.435
86	Hall-Scott (H) 180	T, B, FA	6-5x6	200-2200	170-2100	706.8	5.16	500-1400 (BE)	W	In	I	2112	2.62	2.37	2.37	2.00	.482	.482	.497	.529
87	Hall-Scott (H) 190	T,B,FA,RC	6-5 1/4 x6	240-2200	200-2000	779.3	5.00	570-1200 (BE)	W	In	I	2112	2.62	2.37	2.37	2.00	.482	.482	.497	.529
88	Hall-Scott 400	T	6-5 3/4 x7	286-1800	260-1800	1090.0	5.70	865-1200 (BE)	N	Se	I	2112	2.87	2.75	2.62	2.50	.482	.482	.497	.529
89	Hall-Scott Invader 166-87	M	6-5 1/2 x7	.....	252-2100	997.8	5.09	.....	N	In	I	2112	2.87	2.87	2.62	2.62	.482	.482	.497	.529
90	Hall-Scott Invader 168-69	M	6-5 1/2 x7	.....	275-2100	997.8	5.09	.....	N	In	I	2112	2.87	2.87	2.62	2.62	.482	.482	.497	.529

(For abbreviations see pages 154 and 155)

Engines—*Continued*

VALVES				PISTONS				CONNECTING RODS			CRANKSHAFT																	
Seats														MAIN BEARINGS											OVERALL DIMENSIONS (In.)			
Angle (Deg.)	Inserts Used?	Insert Material (S.A.E. No.)	Camshaft Drive—Type	Material	Weight with Pins, Rings, Bushings (Oz.)	Piston Pin—Diameter and Length (In.)	Number of Rings per Piston	Material	Center to Center Length (In.)	Weight with Bushing and Cap (Oz.)	Material	Counter Balance Used	Crank-Pin Diameter and Length (In.)	Number	Diameter and Length (In.) Front	Diameter and Length (In.) Rear	Oil Pressure to—	Spark Plug—Thread Size	Carburetor Make	Carburetor Size	Engine Weight without Carburetor or Ignition (Lb.)	Width	Height	Length	Line Number
(h)	N	.....	HG	CI	.....	.703x2.75	3	1030	5¾	.....	DFS	N	1.50x1.18	3	1.75x1.28	1.75x1.65	abcet	18 mm	.....	1	290	26	22 1/16	25 1/2	1
(h)	N	.....	HG	CI	.....	.859x2.50	4	1030	7	.....	DFS	N	1.93x1.31	3	2.25x1.18	2.25x1.89	abcet	18 mm	.....	1	370	26	26 1/16	29 1/16	2
(h)	N	.....	HG	CI	.....	.859x2.50	4	1030	7	.....	DFS	N	1.93x1.31	3	2.25x1.18	2.25x1.89	abcet	18 mm	.....	1¼	395	26	26 1/16	29 1/16	3
(h)	N	.....	HG	AL	.....	1.12x2.56	4	1035	7	.....	DFS	N	.....	3	2.37x2.53	2.37x1.68	.....	18 mm	.....	1	475	16 1/16	19 1/16	26 1/16	4
(h)	N	.....	HG	CI	.....	.859x2.68	4	1030	7	.....	DFS	N	1.93x1.31	3	2.25x1.18	2.25x1.89	abcet	18 mm	.....	1	370	26	26 1/16	29 1/16	5
(h)	N	.....	HG	CI	.....	.859x2.68	4	1030	7	.....	DFS	N	1.93x1.31	3	2.25x1.18	2.25x1.89	abcet	18 mm	.....	1¼	395	26	26 1/16	29 1/16	6
(h)	N	.....	HG	AL	.....	1.12x2.75	4	1035	7	.....	DFS	N	.....	3	2.37x1.53	2.37x1.68	.....	18 mm	.....	1	475	16 1/16	19 1/16	26 1/16	7
(h)	N	.....	HG	CI	.....	.859x2.87	4	1030	7	.....	DFS	N	1.93x1.31	3	2.25x1.18	2.25x1.89	abcet	18 mm	.....	1	370	26	26 1/16	29 1/16	8
(h)	N	.....	HG	CI	.....	.859x2.87	4	1030	7	.....	DFS	N	1.93x1.31	3	2.25x1.18	2.25x1.89	abcet	18 mm	.....	1¼	395	26	26 1/16	29 1/16	9
(h)	E	SA	.....	Ala	.....	1.25x3.31	5	1035	9½	.....	DFS	N	2.50x1.18	3	2.87x1.81	2.87x2.06	abce	18 mm	.....	1¼	645	19¾	33 3/16	30 1/2	10
(h)	E	SA	.....	.....	.....	1.25x3.18	5	1035	9½	.....	DFS	N	2.50x1.18	3	2.87x1.81	2.87x2.06	abce	18 mm	.....	1¼	654	19¾	33 3/16	30 1/2	11
(h)	N	.....	HG	CI	.....	.859x2.50	4	1030	7	.....	DFS	N	1.93x1.31	4	2.25x1.18	2.25x1.81	abcet	18 mm	.....	1¼	505	26	27¼	36 1/2	12
(h)	N	.....	HG	CI	.....	.859x2.50	4	1030	7	.....	DFS	Y	1.93x1.31	4	2.25x1.18	2.25x1.81	abcet	18 mm	.....	1¼	515	26	27¼	36 1/2	13
(h)	N	.....	HG	CI	.....	.859x2.62	4	1030	7	.....	DFS	N	1.93x1.31	4	2.25x1.18	2.25x1.81	abcet	18 mm	.....	1¼	505	26	27¼	36 1/2	14
(h)	N	.....	HG	CI	.....	.859x2.62	4	1030	7	.....	DFS	Y	1.93x1.31	4	2.25x1.18	2.25x1.81	abcet	18 mm	.....	1¼	515	26	27¼	36 1/2	15
(h)	N	.....	HG	CI	.....	.859x2.62	4	1030	7	.....	DFS	Y	2.06x1.31	4	2.37x1.28	2.37x1.73	abcet	18 mm	.....	1¼	510	26	27¼	36 1/2	16
(h)	N	.....	HG	CI	.....	.859x2.62	4	1030	7	.....	DFS	Y	2.06x1.31	4	2.37x1.28	2.37x1.81	abcet	18 mm	.....	1¼	515	26	27¼	36 1/2	17
(h)	E	.....	HG	CI	.....	1.10x3.06	4	1035	8⅜	.....	DFS	Y	2.25x1.56	7	2.62x1.50	2.62x2.18	abcet	18 mm	.....	1¼	720	25¾	29½	42	18
(h)	E	SA	HG	CI	.....	1.10x3.06	6	1035	8⅜	.....	DFS	Y	2.25x1.56	7	2.62x1.50	2.62x2.18	abcet	18 mm	.....	1½	755	25¾	29½	42	19
(h)	E	SA	.....	.....	.....	1.10x3.01	4	1035	8⅜	.....	DFS	Y	2.25x1.56	7	2.62x1.53	2.62x2.18	abce	18 mm	.....	1½	940	22¾	31 3/16	42 5/16	20
(h)	E	.....	HG	CI	.....	1.10x3.18	4	1035	8⅜	.....	DFS	Y	2.25x1.56	7	2.62x1.50	2.62x2.18	abcet	18 mm	.....	1¼	720	25¾	29½	42	21
(h)	E	SA	HG	CI	.....	1.10x3.18	6	1035	8⅜	.....	DFS	Y	2.25x1.56	7	2.62x1.50	2.62x2.18	abcet	18 mm	.....	1½	755	25¾	29½	42	22
(h)	E	SA	.....	.....	.....	1.10x3.18	4	1035	8⅜	.....	DFS	Y	2.25x1.56	7	2.62x1.53	2.62x2.18	abce	18 mm	.....	1½	940	22¾	31 3/16	42 5/16	23
(h)	E	.....	HG	CI	.....	1.10x3.43	4	1035	8⅜	.....	DFS	Y	2.25x1.56	7	2.62x1.50	2.62x2.18	abcet	18 mm	.....	1¼	720	25¾	29½	42	24
(h)	E	SA	HG	CI	.....	1.10x3.43	6	1035	8⅜	.....	DFS	Y	2.25x1.56	7	2.62x1.50	2.62x2.18	abcet	18 mm	.....	1½	755	25¾	29½	42	25
(h)	E	SA	.....	.....	.....	1.10x3.18	4	1035	8⅜	.....	DFS	Y	2.25x1.56	7	2.62x1.53	2.62x2.18	abce	18 mm	.....	1¾	940	22¾	31 3/16	42 5/16	26
(h)	E	.....	HG	Ala	.....	1.25x3.43	5	1035	8⅜	.....	DFS	Y	2.50x1.69	7	2.87x1.65	2.87x2.62	abcet	18 mm	.....	1½	870	26	29¼	43 1/16	27
(h)	E	SA	HG	Ala	.....	1.25x3.43	7	1035	8⅜	.....	DFS	Y	2.50x1.69	7	2.87x1.65	2.87x2.71	abcet	18 mm	.....	2	870	28	29¼	43 1/16	28
(h)	N	.....	.....	.....	.....	1.25x3.37	5	1035	8⅜	.....	DFS	Y	.....	7	2.87x1.65	2.87x2.71	abce	18 mm	.....	1¾	1070	24½	31 5/8	45 1/16	29
(h)	E	.....	HG	Ala	.....	1.25x3.43	5	1035	8⅜	.....	DFS	Y	2.50x1.69	7	2.87x1.65	2.87x2.62	abcegt	18 mm	.....	1½	875	26	29¼	43 1/16	30
(h)	E	SA	HG	Ala	.....	1.25x3.43	7	1035	8⅜	.....	DFS	Y	2.50x1.69	7	2.87x1.65	2.87x2.71	abcegt	18 mm	.....	2	875	28	29¼	43 1/16	31
(h)	N	.....	.....	Ala	.....	1.25x3.62	5	1035	8⅜	.....	DFS	Y	.....	7	2.87x1.65	2.87x2.71	abce	18 mm	.....	1¾	1075	24½	31 5/8	45 1/16	32
30	E	.....	HG	Ala	.....	1.50x3.71	4	1035	10½	.....	DFS	Y	2.75x1.81	7	2.75x1.75	2.75x2.81	.....	18 mm	.....	1¾	1330	25¼	39 3/16	45 1/16	33
30	E	SA	HG	AL	.....	1.50x3.71	4	1035	10½	.....	DFS‡	Y	2.75x1.81	7	2.75x1.75	2.75x2.81	.....	18 mm	.....	2	1360	25¼	39 3/16	45 1/16	34
(h)	E	.....	HG	Ala	.....	1.50x3.72	5	1035	10½	.....	DFS	Y	3.00x1.94	7	3.25x1.75	3.25x2.75	abcegt	18 mm	.....	2	1550	.....	.....	.....	35
(h)	E	SA	HG	AL	.....	1.50x3.72	5	1035	10½	.....	DFS‡	Y	3.00x1.94	7	3.25x1.75	3.25x2.75	abcefg	18 mm	.....	2	1525	.....	.....	.....	36
(h)	E	.....	HG	Ala	.....	1.50x3.72	5	1035	10½	.....	DFS	Y	3.00x1.94	7	3.25x1.75	3.25x2.75	abcegt	18 mm	.....	2	1550	.....	.....	.....	37
(h)	E	SA	HG	.....	.....	1.50x3.72	5	1035	10½	.....	DFS‡	Y	3.00x1.94	7	3.25x1.75	3.25x2.75	abceg	18 mm	.....	2	1525	.....	.....	.....	38
(h)	E	SA	HG	Ala	.....	1.50x3.72	5	1035	10½	.....	DFS	Y	3.00x1.94	7	3.25x1.75	3.25x2.75	abceg	18 mm	.....	2	1550	.....	.....	.....	39
(h)	E	SA	HG	AL	.....	1.50x3.72	5	1035	10½	.....	DFS‡	Y	3.00x1.94	7	3.25x1.75	3.25x2.75	abcegt	18 mm	.....	2	1525	.....	.....	.....	40
(h)	E	SA	.....	Alt	.....	1.75x4.53	5	8640	10½	.....	DFS	Y	.....	7	3.75x1.12	3.75x3.62	abce	18 mm	.....	2(2)	.....	31 3/16	47 1/16	57 1/16	41
(h)	E	SA	.....	Alt	.....	1.75x4.53	5	8640	10½	.....	DFS‡	Y	.....	7	3.75x1.87	3.75x3.12	abce	18 mm	.....	2(2)	1885	31 3/16	47 1/16	57 1/16	42
45	E	SA	Ch	Al	.....	.85x2.75	4	MS	7 11/16	.....	CS	Y	2.06x1.00	4	2.50x1.17	2.50x1.59	abce	14 mm	Car	1½	500	23¾	35 1/16	35¼	43
45	E	SA	Ch	Al	.....	.85x2.75	4	MS	7 11/16	.....	CS	Y	2.06x1.00	4	2.50x1.17	2.50x1.59	abce	14 mm	Str	1½	525	23¾	35 1/16	35¼	44
45	E	SA	Ch	Al	.....	.85x2.75	4	MS	7 11/16	.....	CS	Y	2.06x1.00	4	2.50x1.17	2.50x1.59	abce	14 mm	Car	1½	570	.....	.....	.....	45
45	E	SA	Ch	Al	.....	.85x2.87	4	MS	8	.....	CS	Y	2.12x1.09	4	2.50x1.15	2.50x1.59	abce	14 mm	Car	1½	575	23¾	35¼	39 13/16	46
45	E	SA	Ch	Al	.....	.85x2.87	4	MS	7⅞	.....	CS	Y	2.12x1.09	4	2.50x1.15	2.50x1.59	abce	14 mm	Car	1½	590	23¾	35¼	39 13/16	47
45	Bo	Sil°	HG	AL	.....	1.12x3.25	4	MS	9⅛	.....	CS	Y	2.31x1.43	7	3.00x1.71	3.00x2.93	abce	14 mm	Car	1½	.....	.....	.....	.....	48
45	Bo	Sil°	HG	AL	.....	1.12x3.25	4	MS	8¾	.....	CS	Y	2.31x1.43	7	3.00x1.71	3.00x2.93	abce	14 mm	Car	1½	.....	.....	.....	.....	49
45	Y	CMT	SG	Al	13	.75x2.85	4	DFS	7	17	Steel	Y	2.14x1.75	3	2.49x1.50	2.49x2.25	abce	14 mm	Hol	1	.....	22	27½	32½	50
45	E	Aus	SG	Al	.....	.854x2.91	4	CAS	7-8	25-8	CAS	Y	2.23x1.40	4	2.49x1.27	2.49x1.75	abce	14 mm	Hol	1¼	.....	.....	.....	.....	51
30	E	WR	HG	Al	36	.990x3.08	4	1141	7	35	1046	Y	2.31x1.44	4	2.69x1.44	2.78x1.73	abcdeg	14 mm	Zen	1⅜	.....	21 13/16	28 1/16	40¾	52
30	E	WR	HG	Al	38	.990x3.25	4	1141	7	35	1046	Y	2.31x1.44	4	2.69x1.44	2.78x1.73	abcdeg	14 mm	Zen	1⅜	.....	21 13/16	28 1/16	40¾	53
30	E	WR	HG	Al	40	.990x3.25	4	1141	7	35	1046	Y	2.31x1.44	4	2.69x1.44	2.78x1.73	abcdeg	14 mm	Zen	1⅜	.....	21 13/16	28 1/16	40¾	54
45	E	WR	HG	Al	40	1.00x3.36	4	1340	9¾	47	1050	Y	2.37x1.62	7	2.75x2.28	2.75x2.37	abcdeg	14 mm	Zen	1½	.....	25¼	31 13/16	45 3/16	55
(h)	E	St	HG	Al	59	1.25x3.59	4	1340	10¾	69	1050	Y	2.62x1.75	7	3.00x2.37	3.00x2.50	abcdeg	14 mm	Zen	1¾	.....	22½	35 1/16	47 1/16	56
(h)	E	St	HG	Al	60	1.25x3.71	4	1340	10¾	69	1050	Y	2.62x1.75	7	3.00x2.37	3.00x2.50	abcdeg	14 mm	Zen	1¾	.....	22½	35 1/16	47 1/16	57
(h)	E	St	HG	Al	64	1.25x3.96	4	1340	10¾	69	1050	Y	2.62x1.75	7	3.00x2.37	3.00x2.50	abcdeg	14 mm	Zen	1¾	.....	22½	35 1/16	47 1/16	58
(h)	N	.....	HG	AL	.....	.703x2.43	3	CS	5¾	.....	1045	N	1.5x1.18	3	1.75x1.78	1.75x1.37	abcer	14 mm	Zen	1	390	17¾	19 1/16	29¼	59
(h)	N	.....	HG	AL	.....	.859x2.69	4	CS	7	.....	1045	N	1.93x1.31	3	2.25x1.89	2.25x1.18	abcer	18 mm	Zen	1¼	565	19½	22 1/16	35 1/16	60
(k)	N	.....	HG	CI	.....	.859x2.81	4	CS	7	.....	1045	Y	2.08x1.31	4	2.25x1.73	2.25x1.28	abcer	18 mm	Zen	1½	695	19⅜	22 1/16	42 1/16	61
45	N	.....	HG	AL	.....	.859x2.87	4	CS	8⅜	.....	1045	Y	2.12x1.37	4	2.37x2.06	2.37x1.43	abcer	18 mm	Zen	1½	825	23 1/16	23¾	43 5/16	62
(k)	N	.....	HG	AL	.....	1.10x3.43	5	CS	8⅜	.....	1045	Y	2.25x1.56	7	2.62x2.15	2.62x1.56	abcer	18 mm	ST	1¾	1070	24 5/8	25¼	49¾	63
(k)	.....	.....	HG	AL	.....	1.25x3.63	5	CS	8⅜	.....	1045	Y	2.5x1.68	7	2.87x2.71	2.87x1.56	abcer	18 mm	ST	1¾	1250	25 1/16	25 1/16	53 1/16	64
(h)	N	.....	HG	AL	.....	.859x2.68	4	CS	7	.....	1045	N	1.93x1.31	3	2.25x1.89	2.25x1.18	abcer	18 mm	Zen	1¼	565	19½	22 1/16	35 1/16	65
(k)	N	.....	HG	AL	.....	.859x2.81	4	CS	7	.....	1045	Y	2.06x1.31	4	2.25x1.73	2.25x1.28	abcer	18 mm	Zen	1½	695	19⅜	22 1/16	42 1/16	66
45	N	.....	HG	AL	.....	.859x2.87	4	CS	8⅜	.....	1045	Y	2.12x1.37	4	2.37x2.06	2.37x1.43	abcer	18 mm	Zen	1½	825	21 1/16	23¾	43¾	67
(k)	N	.....	HG	AL	.....	1.10x3.43	5	CS	8⅜	.....	1045	Y	2.25x1.56	7	2.62x2.15	2.62x1.56	abcer	18 mm	ST	2	1070	24 5/8	25¼	49¾	68
(k)	.....	.....	HG	AL	.....	1.25x3.63	5	CS	8⅜	.....	1045	Y	2.5x1.68	7	2.87x2.71	2.87x1.65	abcer	18 mm	ST	2	1250	25 1/16	25 1/16	53 1/16	69
(k)	N	.....	HG	AL	.....	1.10x3.43	5	CS	8⅜	.....	1045	Y	2.25x1.56	7	2.62x2.15	2.62x1.56	abcer	18 mm	ST	1¾	1025	24 5/8	25¼	49¾	70
(k)	.....	.....	HG	AL	.....	1.25x3.63	5	CS	8⅜	.....	1045	Y	2.5x1.68	7	2.87x2.71	2.87x1.65	abcer	18 mm	ST	1¾	1200	25 1/16	25 1/16	52 1/16	71
(h)	N	.....	HG	AL	.....	.703x2.43	3	CS	5¾	.....	1045	N	1.5x1.18	3	1.75x1.78	1.75x1.37	abcer	14 mm	Zen	1¼	365	17¾	19 1/16	29¼	72
(h)	N	.....	HG	AL	.....	.859x2.68	4	CS	7	.....	1045	N	1.93x1.31	3	2.25x1.89	2.25x1.18	abcer	18 mm	Zen	1⅜	500	23 1/16	22 1/16	33	73
(k)	N	.....	HG	AL	.....	.859x2.81	4	CS	7	.....	1045	Y	2.06x1.31	4	2.25x1.73	2.25x1.28	abcer	18 mm	Zen	1⅜	650	21 1/16	23¼	39 7/16	74
45	N	.....	HG	AL	.....	.859x2.87	4	CS	8⅜	.....	1045	Y	2.12x1.37	4	2.37x2.06	2.37x1.43	abcer	18 mm	Zen	1½	790	25 1/16	23 1/16	42 1/16	75
(h)	N	.....	HG	AL	.....	.703x2.43	3	CS	5¾	.....	1045	N	1.5x1.18	3	1.75x1.78	1.75x1.37	abcer	14 mm	Zen	1¼	365	17¾	19 1/16	29¼	76
(h)	N	.....	HG	AL	.....	.859x2.68	4	CS	7	.....	1045	N	1.93x1.31	3	2.25x1.89	2.25x1.18	abcer	18 mm	Zen	1¾	500	21 1/16	22 1/16	33	77
45	N	.....	HG	AL	.....	.859x2.87	4	CS	8⅜	.....	1045	Y	2.12x1.37	4	2.37x2.06	2.37x1.43	abcer	18 mm	Zen	1½	790	25 1/16	23 1/16	42 1/16	78
45	N	.....	HG	AL	.....	.859x2.87	4	CS	8⅜	.....	1045	Y	2.12x1.37	4	2.37x2.06	2.37x1.43	abcer	18 mm	Zen	1½	790	25 1/16	23 1/16	42 1/16	79
45	N	.....	HG	AL	.....	.859x2.87	4	CS	8⅜	.....	1045	Y	2.12x1.37	4	2.37x2.06	2.37x1.43	abcer	18 mm	Zen	1½	790	27 1/16	25¼	42 1/16	80
(h)	N	.....	HG	AL	.....	.703x2.43	3	CS	5¾	.....	1045	N	1.51x1.18	3	1.75x1.78	1.75x1.37	abcer	14 mm	Zen	1¼	.....	17¾	19 1/16	29¼	81
45	N	.....	HG	AL	.....	.874x2.92	4	CS	8⅜	.....	1045	Y	2.12x1.37	4	2.37x2.06	2.37x1.43	abcer	18 mm	Zen	1½	.....	29⅜	27 1/16	37 1/16	82
45	N	.....	HG	AL	.....	.874x2.92	4	CS	8⅜	.....	1045	Y	2.12x1.37	4	2.37x2.06	2.37x1.43	abcer	18 mm	Zen	1½	.....	29⅜	27 1/16	37 1/16	83
30	E	CA	Ch	Al	52	1.12x3.74	4	AS	11	104	4140	Y	2.62x2.00	7	3.00x1.50	3.00x2.25	abcefg	18 mm	Zen	1¾	1252*	54¾	18 7/16	52 7/16	84
30	E	CA	Ch	Al	56	1.12x3.98	4	AS	11	104	4140	Y	2.62x2.00	7	3.00x1.50	3.00x2.25	abcefg	18 mm	Zen	1¾	1265*	54¾	18 7/16	52 7/8	85
30	E	CA	Ch	Al	77	1.37x4.20	5	AS	11	119	4140	Y	2.75x2.45	7	3.00x2.18	3.25x2.56	abcefg	18 mm	Zen	2	1960*	53 1/16	20 1/16	69 3/8	86
30	E	CA	HC	Al	104	1.37x4.43	5	AS	11	119	4140	Y	2.75x2.45	7	3.25x2.18	3.25x2.56	abcefg	18 mm	Zen(2)	1¾	2035*	53½	22¼	69 3/8	87
(h)	E	4140°	HC	Al	120	1.37x4.93	6	3140	12	157	4140	Y	3.00x2.43	7	3.25x2.09	3.25x3.12	abceg	18 mm	Zen	2½	1950*	28	41 5/16	60 1/16	88
30	N	.....	Ch	Al	108	1.37x4.88	5	AS	11	117	4140	Y	2.50x2.45	7	2.75x1.94	2.75x1.94	abcefg	18 mm	Zen(2)	2	3285*	25	47 1/16	90 1/2	89
30	N	.....	Ch	Al	108	1.37x4.68	5	AS	11	117	4140	Y	2.50x2.45	7	2.75x1.94	2.75x1.94	abcefgr	18 mm	Zen(2)	2	2200*	25	39 5/8	74 7/16	90

(For abbreviations see pages 154 and 155)

Line Number	ENGINE MAKE AND MODEL	Designed for	Number of Cylinders, Bore and Stroke (In.)	MAXIMUM BRAKE Hp. at Specified R.P.M.		Piston Displacement (Cu. In.)	Compression Ratio	Maximum Torque at R.P.M. (Lb. Ft.) with or without Accessories	Cylinder Liners—Type	Crankcase—Upper Half Integral with Cylinders	VALVES									
				With Bare Engine	With Standard Accessories						Arrangement	Exhaust Head Material (S.A.E. No.)	Max. Head Diameter (In.)		Min. Port Diameter (In.)		Lift (In.)		Stem Diameter (In.)	
													Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust
1	Hall-Scott.....Defender 2286-87	M	12-5¾x7	.....	605-2100	2181.0	7.00	.....	N	Se	I	2112	2.87	2.75	2.62	2.50	.482	.482	.497	.528
2	Hall-Scott.....Defender 2268-69	M	12-5¾x7	.....	630-2100	2181.0	7.00	.....	N	Se	I	2112	2.87	2.75	2.62	2.50	.482	.482	.497	.528
3	Hall-Scott.....Defender ‡3368-69	M	12-5¾x7	.....	900-2100	2181.0	6.00	.....	N	Se	I	2112	2.87	2.75	2.62	2.50	.482	.482	.497	.528
4	Hall-Scott.....(H) 136	T,B	6-4½x5	159-2600	136-2600	477	6.50	380-1600 (BE)	N	Se	I	AESW	2.15	2.02	2.00	1.75	.506	.506	.435	.435
5	Hall-Scott.....470	Tr,In	6-5½x6	245-2100	.....	855	5.20	660-1600 (BE)	N	Se	I	AESW	2.62	2.37	2.37	2.02	.547	.547	.497	.528
6	Hall-Scott.....480	Tr,In	6-5¾x6	268-2100	.....	935	5.70	760-1400 (BE)	N	Se	I	AESW	2.62	2.37	2.37	2.02	.547	.547	.497	.528
7	Hercules.....BXB	M,Tr,Ind	2-2⅞x3	10-2300	8.5-2300	39.0	6.00	28-1200 (BE)	N	In	L	AUS	1.30	1.05	1.12	.875	.200	.200	.248	.248
8	Hercules.....NXA	M,Tr,Ind	2-3x4	13-2000	11-2000	56.5	5.50	39-1100 (BE)	N	In	L	AUS	1.48	1.35	1.25	1.12	.250	.250	.310	.310
9	Hercules.....NXB	M,Tr,Ind	2-3¼x4	16-2000	13-2000	66.3	5.50	46-1100 (BE)	N	In	L	AUS	1.48	1.35	1.25	1.12	.250	.250	.310	.310
10	Hercules.....ZXA	M,T,Tr,Ind	4-2½x3	23-3800	19-3800	58.8	6.10	37-1800 (BE)	N	In	L	AUS	1.30	1.05	1.12	.875	.200	.200	.248	.248
11	Hercules.....ZXB	T,Tr,M,Ind	4-2⅝x3	25-3800	21-3800	64.9	6.10	78-1800 (BE)	N	In	L	AUS	1.30	1.05	1.12	.875	.200	.200	.248	.248
12	Hercules.....IXA	T,Tr,M,Ind	4-3x4	40-3200	34-3200	113.0	5.50	79-2000 (BE)	N	In	L	AUS	1.48	1.35	1.25	1.12	.250	.250	.310	.310
13	Hercules.....IXB	T,Tr,M,Ind	4-3¼x4	47-3200	40-3200	133.0	5.50	92-1800 (BE)	N	In	L	AUS	1.48	1.35	1.25	1.12	.250	.250	.310	.310
14	Hercules.....QXA	T,B,Tr,M,Ind	6-3⅛x4½	64-3200	54.5-3200	190.0	6.50	132-1300 (BE)	N	In	L	AUS	1.45	1.12	1.56	1.12	.311	.311	.310	.310
15	Hercules.....QXB	T,B,Tr,M,Ind	6-3¼x4½	69-3200	59-3200	205.0	6.50	142-1400 (BE)	N	In	L	AUS	1.48	1.35	1.46	1.12	.311	.311	.310	.310
16	Hercules.....QXC	T,B,Tr,M,Ind	6-3⅜x4½	77.5-3200	66-3200	221.0	6.50	159-1400 (BE)	N	In	L	AUS	1.61	1.35	1.46	1.12	.311	.311	.310	.310
17	Hercules.....QXLD	T,B,Tr,M,Ind	6-3⅞x4½	91-3200	77-3200	236.7	6.50	189-1400 (BE)	N	In	L	AUS	1.61	1.36	1.50	1.25	.311	.311	.310	.310
18	Hercules.....JXE	T,B,Tr,M,Ind	6-3½x4¼	91-3200	77-3200	245.0	6.80	184-1400 (BE)	N	In	L	AUS	1.68	1.56	1.50	1.37	.356	.356	.373	.373
19	Hercules.....JXB	T,B,Tr,M,Ind	6-3⅝x4¼	98-3200	83-3200	263.0	6.50	190-1400 (BE)	N	In	L	AUS	1.68	1.56	1.50	1.37	.356	.356	.373	.373
20	Hercules.....JXC	T,B,Tr,M,Ind	6-3¾x4¼	103-3200	87.5-3200	282.0	6.50	207-1400 (BE)	N	In	L	AUS	1.68	1.56	1.50	1.37	.356	.356	.373	.373
21	Hercules.....JXD	T,B,Tr,M,Ind	6-4x4¼	113-3000	96-3000	320.0	6.50	240-1200 (BE)	N	In	L	AUS	1.68	1.56	1.50	1.37	.356	.356	.373	.373
22	Hercules.....JXLD	T,B,Tr,M,Ind	6-4x4½	131-3200	111-3200	339.0	6.90	272-1400 (BE)	N	In	L	AUS	1.83	1.67	1.72	1.56	.356	.356	.373	.373
23	Hercules.....WXC-3	T,B,Tr,M,Ind	6-4¼x4½	131-2600	111-2600	383.0	6.60	296-1400 (BE)	N	In	L	AUS	1.87	1.75	1.62	1.50	.388	.388	.373	.373
24	Hercules.....WXLC	T,B,Tr,M,Ind	6-4x4¾	123-2600	104-2600	358.0	6.60	275-1200 (BE)	N	In	L	AUS	1.87	1.75	1.62	1.50	.388	.388	.373	.373
25	Hercules.....WXLC-3	T,B,Tr,M,Ind	6-4¼x4¾	139-2600	118-2600	404.0	6.60	312-1300 (BE)	N	In	L	AUS	1.87	1.75	1.62	1.50	.388	.388	.373	.373
26	Hercules.....RXB	T,B,Tr,M,Ind	6-4½x5¼	137-2400	116-2400	501.0	6.50	350-1200 (BE)	N	In	L	AUS	2.00	2.00	1.75	1.75	.388	.388	.373	.373
27	Hercules.....RXC	T,B,Tr,M,Ind	6-4⅝x5¼	143-2400	121-2400	529.2	6.50	372-1200 (BE)	N	In	L	AUS	2.00	2.00	1.75	1.75	.388	.388	.373	.373
28	Hercules.....RXLC	T,B,Tr,M,Ind	6-4⅝x5¼	148-2400	124-2400	529.2	6.20	408-1100 (BE)	N	In	L	AUS	2.00	2.00	1.81	1.75	.388	.388	.373	.373
29	Hercules.....RXLD	T,B,Tr,M,Ind	6-4¾x5¼	154-2400	131-2400	558.0	6.50	430-1100 (BE)	N	In	L	AUS	2.00	2.00	1.81	1.75	.388	.388	.373	.373
30	Hercules.....HXB	T,B,Tr,M,Ind	6-5x6	159-2000	135-2000	707.0	5.75	502- 900 (BE)	N	Se	L	AUS	2.43	2.31	2.12	2.00	.468	.468	.498	.498
31	Hercules.....HXC	T,B,Tr,M,Ind	6-5¼x6	175-2000	145-2000	779.0	5.75	555- 900 (BE)	N	Se	L	AUS	2.43	2.31	2.12	2.00	.488	.468	.498	.498
32	Hercules.....HXD	T,B,Tr,M,Ind	6-5½x6	202-2000	172-2000	855.0	5.75	645- 900 (BE)	N	Se	L	AUS	2.43	2.31	2.12	2.00	.468	.468	.498	.498
33	Hercules.....HXE	T,B,Tr,M,Ind	6-5¾x6	227-2000	193-2000	935.0	6.20	750- 900 (BE)	N	Se	L	AUS	2.43	2.31	2.18	2.00	.468	.468	.498	.498
34	International.....U-2	Tr,Ind	4-3x4	24.5-1800	22-1800	113.1	5.23	78-1000 (EA)	W	In	I	CNS	1.34	1.22	1.19	1.06	.261	.261	.341	.341
35	International.....U-4	Tr,Ind	4-3⅜x4¼	33.5-1800	31.5-1800	152.1	5.90	108-1250 (EA)	D	In	I	CNS	1.50	1.37	1.34	1.22	.343	.343	.341	.341
36	International.....U-6	Tr,Ind	4-3⅞x5¼	43-1500	41-1500	247.7	5.65	162-900 (EA)	D	In	I	CNS	1.81	1.66	1.59	1.44	.438	.438	.372	.372
37	International.....U-9	Tr,Ind	4-4.4x5½	56.5-1500	55-1500	334.5	5.40	227-1000 (EA)	D	In	I	CNS	2.09	1.91	1.87	1.69	.469	.469	.402	.402
38	International.....GRD-214	T	6-3⅛x4½	62.4-3400	73-3200	.....	.....	158-1000 (EA)	N	In	L	Sil	1.68	1.43	1.50	1.28	.320	.320	.372	.371
39	International.....GRD-233	T	6-3½x4½	93-3400	80-3400	232.6	6.30	176- 800 (EA)	In	In	L	XCR	1.68	1.44	1.50	1.28	.320	.320	.372	.371
40	International.....BLD-250	T	6-3⅞x4½	99.8-3200	84-3000	250.5	6.30	194- 800 (EA)	D	In	I	XCR	1.65	1.46	1.50	1.31	.332	.332	.342	.341
41	International.....BLD-269	T,B,Ind	6-3¾x4½	100-3000	89-2800	269.1	6.30	216-1000 (EA)	D	In	I	XCR	1.68	1.47	1.50	1.31	.332	.332	.342	.342
42	International.....RED-361	T,B,Ind	6-4¼x4½	126-2800	112-2800	360.8	6.30	278-1000 (EA)	D	In	I	XCR	2.25	1.62	2.00	1.37	.449	.449	.434	.434
43	International.....RED-401	T	6-4½x5	140-2800	126-2800	400.9	6.30	314-1000 (EA)	D	In	I	XCR	2.25	1.54	2.00	1.37	.449	.449	.434	.434
44	International.....RED-450	T,B,Ind	6-4¾x5	148-2600	133-2600	451.0	6.30	348-1000 (EA)	D	In	I	XCR	2.25	1.53	2.00	1.37	.449	.449	.434	.434
45	Kermath.....ZX	M	4-2⅝x3	.....	25-3400	65.0	6.00	40-1700 (EA)	N	In	L	Sil	1.25	1.12	1.12	.875	.250	.250	.310	.310
46	Kermath.....KWF	M	4-3⅛x4⅝	.....	40-2700	134.0	6.48	106-2200 (EA)	N	In	L	.....	1.53	1.46	1.34	1.23	.359	.359	.373	.373
47	Kermath.....KWHS	M	4-3½x3⅝	.....	61-3600	134.0	6.48	106-2200 (EA)	N	In	L	.....	1.53	1.46	1.34	1.28	.359	.359	.373	.373
48	Kermath.....P-846	M	6-3¼x3¾	.....	110-3600	187.0	7.00	.....	N	In	L	Sil	1.47	1.34	1.31	1.18	.296	.296	.312	.312
49	Kermath.....QXC	M	6-3⅜x4⅛	.....	95-3600	221.0	6.50	.....	N	In	L	Sil	1.87	1.87	1.81	1.81	.281	.281	.310	.310
50	Kermath.....P-640	M	6-3½x4	.....	103-3600	239.0	7.20	.....	N	In	L	Sil	1.59	1.47	1.37	1.31	.296	.296	.312	.312
51	Kermath.....JXD	M	6-4x4¼	.....	122-3000	320.0	6.90	235-2000 (EA)	N	In	L	CNS	1.84	1.62	1.62	1.37	.376	.376	.373	.373
52	Kermath.....WXL	M	6-4¼x4¾	.....	155-3000	404.0	6.50	.....	N	In	L	CNS	2.06	1.87	1.81	1.62	.500	.500	.373	.373
53	Kermath.....LA	M	6-5x5¾	.....	200-2400	678.0	5.70	480-1000 (EA)	N	Se	L	CNS	2.62	2.37	2.40	2.00	.437	.375	.437	.437
54	Kermath.....R	M	6-5x5¾	.....	225-2400	678.0	5.70	540-1700 (EA)	N	Se	I	CNS	1.93	1.93	1.76	1.76	.375	.375	.375	.375
55	Kermath.....VZ	M	12-2⅞x3¾	.....	120-3500	292.0	.....	.....	.....	In	L	CNS	1.53	1.53	.....	.....	.292	.292	.311	.311
56	Kermath.....V	M	12-5x6	.....	500-2400	1414.0	5.70	1070-1400 (EA)	N	Se	I	CNS	1.93	1.93	1.76	1.76	.375	.375	.437	.437
57	Lathrop.....Standard	M	3-5⅞x6½	.....	27-700	412.1	.....	206-800 (EA)	N	Se	T	CNS	2.25	2.25	2.00	2.00	.375	.375	.437	.437
58	Lathrop.....Standard	M	3-5⅞x6½	.....	34-800	463.2	.....	237-700 (EA)	N	Se	T	CNS	2.25	2.25	2.00	2.00	.375	.375	.437	.437
59	Lathrop.....LH	M	4-3¼x4	.....	38-2200	133.0	.....	92-2000 (EA)	N	In	L	CNS	.....	.....	1.25	1.12	.312	.312	.312	.312
60	Lathrop.....Standard	M	4-5⅞x6½	.....	29-700	549.5	.....	233-500 (EA)	N	Se	T	CNS	2.25	2.25	2.00	2.00	.375	.375	.437	.437
61	Lathrop.....Standard	M	4-5⅞x6½	.....	49-800	617.7	.....	342-600 (EA)	N	Se	T	CNS	2.25	2.25	2.00	2.00	.375	.375	.437	.437
62	Lathrop.....Engineers	M	4-5½x7	.....	64-1000	665.2	.....	373-650 (EA)	N	Se	L	CNS	2.68	2.50	2.31	2.12	.375	.375	.500	.500
63	Lathrop.....Engineers	M	4-6x7	.....	76-1000	791.6	.....	461-700 (EA)	N	Se	L	CNS	2.68	2.50	2.31	2.12	.375	.375	.500	.500
64	Lathrop.....LH	M	6-3⅝x4¼	.....	62-2200	282.0	.....	173-550 (EA)	N	In	L	CNS	.....	.....	1.50	1.37	.312	.312	.375	.375
65	Lathrop.....LH-D6	M	6-4x4¼	.....	107-2500	320.0	.....	226-2500 (EA)	N	In	L	CNS	1.75	1.62	1.50	1.37	.358	.356	.375	.375
66	Lathrop.....Mystic	M	6-4½x5½	.....	96-1600	524.8	.....	321-1350 (EA)	N	Se	L	CNS	2.25	2.25	2.00	2.00	.375	.375	.437	.437
67	Lathrop.....Mystic	M	6-4¾x5½	.....	106-1600	584.7	.....	379-900 (EA)	N	Se	L	CNS	2.25	2.25	2.00	2.00	.375	.375	.437	.437
68	Lathrop.....Mystic	M	6-5⅛x6½	.....	155-1500	926.5	.....	561-1200 (EA)	N	Se	L	CNS	2.68	2.68	2.31	2.31	.437	.437	.500	.500
69	Lathrop.....Mystic	M	6-5¾x6½	.....	179-1600	1012.8	.....	640-1100 (EA)	N	Se	L	CNS	2.68	2.68	2.31	2.31	.437	.437	.500	.500
70	Lathrop.....Engineers	M	6-6x7	115- 925	118-1000	1187.5	.....	650- 925 (EA)	N	Se	L	CNS	2.68	2.50	2.31	2.12	.375	.375	.500	.500
71	Le Roi.....D91	Ind	4-2⅞x3½	20.7-1800	20-1800	90.8	5.80	60-1800 (EA)	N	In	L	Sil	1.43	1.43	1.06	1.06	.188	.188	.312	.312
72	Le Roi.....D140	Ind	4-3½x3⅝	.....	33-2300	140.0	5.85	94.5-1200 (EA)	W	In	I	CNS	1.37	1.28	1.18	1.18	.311	.311	.342	.342
73	Le Roi.....D176	Ind	4-3¾x4	.....	38-1800	176.0	5.40	122-1200 (EA)	W	In	I	CNS	1.68	1.50	1.37	1.25	.373	.373	.372	.372
74	Le Roi.....D201	Ind	4-4x4	.....	44-1800	201.0	4.87	140-1200 (EA)	W	In	I	CNS	1.68	1.50	1.37	1.25	.373	.373	.372	.372
75	Le Roi.....D226	Ind	4-4x4½	.....	51-1800	226.0	4.71	167-1200 (EA)	W	In	I	CNS	1.68	1.50	1.37	1.25	.373	.373	.372	.372
76	Le Roi.....D382	Ind	4-4½x6	.....	57-1200	382.0	4.60	257-900 (EA)	W	In	I	.....	1.87	1.75	1.75	1.62	.470	.470	.433	.433
77	Le Roi.....D471	Ind	4-5x6	.....	70-1200	471.0	4.50	320-900 (EA)	W	In	I	CNS	1.87	1.75	1.75	1.62	.470	.470	.433	.433
78	Le Roi.....L3000	Ind	4-6¾x7	.....	140-1200	1002.0	4.50	690-650 (EA)	N	Se	I	Sil	2.81	2.81	2.12	2.50	.546	.546	.624	.624
79	Le Roi.....H2000	Ind	6-6¾x7	.....	208-1200	1503.0	4.50	1035-650 (EA)	N	Se	I	Sil	2.81	2.81	2.12	2.50	.546	.546	.624	.624
80	Le Roi.....F1500	Ind	8-6¾x7	.....	278-1200	2004.0	4.50	1380-650 (EA)	N	Se	I	Sil	2.81	2.81	2.12	2.50	.546	.546	.624	.624
81	Le Roi.....D1000	Ind	12-6¾x7	.....	416-1200	3006.0	4.50	2075-650 (EA)	N	Se	I	Sil	2.81	2.81	2.12	2.50	.546	.546	.624	.624
82	M-M (8).....165-4	Ind,Tr	4-3⅝x4	26-1400	25-1400	165.1	5.75	107-1000 (BE)	N	Se	Hh	.....	1.46	1.46	1.25	1.25	.354	.354	.341	.341
83	M-M.....185-4	Ind,Tr	4-3⅝x4½	33-1500	.....	185.7	5.75	124-1100 (BE)	N	Se	Hh	.....	1.46	1.46	1.25	1.25	.354	.354	.341	.341
84	M-M.....206A-4	Ind	4-3⅝x5	40-1500	38-1500	206.5	6.15	150-1100 (BE)	N	Se	Hh	.....	1.46	1.46	1.25	1.25	.354	.354	.341	.341
85	M-M.....283-4	Ind,Tr	4-4¼x5	51-1300	48-1300	283.7	5.40	212-1000 (BE)	N	Se	I	.....	1.72	1.59	1.50	1.37	.490	.490	.434	.434
86	M-M.....403-4	Ind,Tr	4-4⅝x6	65-1100	60-1100	403.2	5.25	315-900 (BE)	N	Se	I	.....	1.84	1.72	1.62	1.50	.490	.490	.434	.434
87	M-M.....425-6	Ind	6-4¼x5	76-1300	73-1300	425.5	5.40	302-1100 (BE)	N	Se	I	.....	1.72	1.59	1.50	1.37	.490	.490	.434	.434
88	M-M.....605-6	Ind	6-4⅝x6	94-1100	87-1100	605.0	5.25	458-800 (BE)	N	Se	I	.....	1.84	1.72	1.62	1.50	.490	.490	.434	.434
89	M-M.....ME	Ind	4-8x9	.....	153- 650	1810.0	4.70	1255-550 (BE)	N	Se	I	.....	3.34	3.34	3.00	3.00	.700	.700	.683	.683
90	M-M.....NE	Ind	6-8x9	.....	222- 650	2714.0	4.70	1880-450 (BE)	N	Se	I	.....	3.34	3.34	3.00	3.00	.700	.700	.683	.683

(For abbreviations see pages 154 and 155)

Engines—*Continued*

VALVES				PISTONS				CONNECTING RODS			CRANKSHAFT										CARBURETOR			OVERALL DIMENSIONS (In.)			
Seats														MAIN BEARINGS													
Angle (Deg.)	Inserts Used?	Insert Material (S.A.E. No.)	Camshaft Drive—Type	Material	Weight with Pins, Rings, Bushings (Oz.)	Piston Pin—Diameter and Length (In.)	Number of Rings per Piston	Material	Center to Center Length (In.)	Weight with Bushing and Cap (Oz.)	Material	Counter Balance Used	Crank-Pin Diameter and Length (In.)	Number	Diameter and Length (In.) Front	Diameter and Length (In.) Rear	Oil Pressure to—	Spark Plug—Thread Size	Make	Size	Engine Weight without Carburetor or Ignition (Lb.)	Width	Height	Length	Line Number
30	E	CA	HC	Al	128	1.37x4.94	6	3140	12	237▲	4140	Y	3.00x2.43	7	3.25x2.09	3.25x2.09	abcefgr	18 mm	Zen(3)	2½	4560*	43¾	50¼	108 7/16	1
30	E	CA	HC	Al	128	1.37x4.94	6	3140	12	237▲	4140	Y	3.00x2.43	7	3.25x2.09	3.25x2.09	abcefgr	18 mm	Zen(3)	2½	3650*	45	42¾	88	2
30	E	CA	HC	Al	123	1.37x4.94	6	3140	12	237▲	4140	Y	3.00x2.43	7	3.25x2.09	3.25x2.09	abcefgr	18 mm	Zen(4)	2½	4105*	43¾	56¼	91 7/16	3
(h)	E	4140°	Ch	Al	53	1.12x3.98	4	3135	11	91	4140	Y	2.62x2.00	7	3.00x1.46	3.00x2.28	abcde	18 mm	Zen	1¾	1293	56 1/16	20 1/16	53¼	4
(h)	E	4140°	Ch	Al	116	1.37x4.68	5	3140	12	157	4140	Y	3.00x2.43	7	3.25x2.09	3.25x3.12	abcdf	18 mm	Zen	2½	2116	28	44 5/16	60 9/16	5
(h)	E	4140°	Ch	Al	132	1.37x4.93	5	3140	12	157	4140	Y	3.00x2.43	7	3.25x2.09	3.25x3.12	abcdf	18 mm	Zen	2½	2136	28	44 5/16	60 9/16	6
30	N	.....	HG	CI	25	.687x2.50	3	3140	5 1/16	15	1045	Y	1.50x1.00	2	2.00x1.25	2.00x1.37	abe	14 mm	Op	5/8	131	16¼	15 3/32	17 3/32	7
30	N	.....	HG	CI	28	.750x2.56	3	3140	6 1/16	21	1045	Y	1.75x1.12	2	2.00x1.56	2.00x1.62	abe	14 mm	Op	¾	270	16¾	19 1/16	18 3/32	8
30	N	.....	HG	CI	29.5	.750x2.81	3	3140	6 1/16	21	1045	Y	1.75x1.12	2	2.00x1.56	2.00x1.62	abe	14 mm	Op	¾	270	16¾	19 1/16	18 3/32	9
30	N	.....	HG	CI	19	.687x2.14	3	3140	5 1/8	15	4140	N	1.50x1.00	3	2.00x1.31	2.00x1.37	abe	14 mm	Op	Op	179	14¾	16¼	21 1/16	10
30	N	.....	HG	CI	21	.687x2.33	3	3140	5 1/8	15	4140	N	1.50x1.00	3	2.00x1.31	2.00x1.37	abe	14 mm	Op	Op	179	14¾	16¼	21 1/16	11
30	N	.....	HG	CI	28	.750x2.56	3	3140	6 1/16	21	CS‡	N	1.75x1.12	3	2.00x1.56	2.00x1.62	abe	14 mm	Op	Op	285	16⅝	19¾	24¼	12
30	N	.....	HG	CI	29.5	.750x2.81	3	3140	6 1/16	21	CS‡	N	1.75x1.12	3	2.00x1.56	2.00x1.62	abe	14 mm	Op	Op	293	16⅝	19¾	24¼	13
30	N	.....	HG	Al	23.1	.875x2.67	4	1035	7	26	CS‡	Op	2.00x1.25	7	2.50x1.31	2.50x1.93	abe	14 mm	Op	1¼	440	15 11/32	21 11/32	36 1/32	14
30	N	.....	HG	Al	24	.875x2.81	4	1035	7	26	CS‡	Op	2.00x1.25	7	2.50x1.31	2.50x1.93	abe	14 mm	Op	1¼	440	15 11/32	21 11/32	36 1/32	15
30	N	.....	HG	Al	28	.875x2.92	4	1035	7	26	CS‡	Op	2.00x1.25	7	2.50x1.31	2.50x1.93	abe	14 mm	Op	1¼	440	15 11/32	21 11/32	36 1/32	16
30	N	.....	HG	Al	26	.875x2.92	3	1035	7	26	CS‡	Y	2.00x1.25	7	2.50x1.31	2.50x1.93	abe	14 mm	Op	1¼	445	15 11/32	21 11/32	36 1/32	17
45	N	.....	HG	Al	31	1.00x2.92	4	1040	8	37	CS‡	Op	2.00x1.50	7	2.50x1.31	2.50x2.12	abe	14 mm	Op	1¼	590	18 11/32	24 1/32	38 3/32	18
45	N	.....	HG	Al	35.5	1.00x3.17	4	1040	8	37	CS‡	Op	2.00x1.50	7	2.50x1.31	2.50x2.12	abe	14 mm	Op	1¼	605	17 7/8	24 1/32	39 5/8	19
45	N	.....	HG	Al	37.5	1.00x3.26	4	1040	8	37	CS‡	Op	2.00x1.50	7	2.50x1.31	2.50x2.12	abe	14 mm	Op	1¼	605	17 7/8	24 1/32	39 5/8	20
45	N	.....	HG	Al	40.5	1.00x3.51	4	1040	8	37	CS‡	Op	2.00x1.50	7	2.50x1.31	2.50x2.12	abe	14 mm	Op	1½	605	17 7/8	24 1/32	39 5/8	21
30	N	.....	HG	Al	44.5	1.12x3.44	4	1035	8	39.2	CS‡	Y	2.00x1.50	7	2.50x1.31	2.50x2.12	abe	14 mm	Op	1¾	630	17 7/8	24 1/32	39 5/8	22
45	N	.....	HG	Al	50	1.12x3.70	4	1035	9 1/16	50	CS‡	Op	2.25x1.50	7	2.62x1.75	2.62x2.75	abce	14 mm	Op	1½	820	22 11/32	27 1/16	41 1/16	23
45	N	.....	HG	Al	44	1.12x3.57	4	3140	8 7/16	50	CS‡	Op	2.25x1.50	7	2.62x1.75	2.62x2.75	abce	14 mm	Op	1½	811	22 11/32	27 1/16	41 1/16	24
45	N	.....	HG	Al	50	1.12x3.70	4	3140	8 7/16	50	CS‡	Op	2.25x1.50	7	2.62x1.75	2.62x2.75	abce	14 mm	Op	1½	825	22 11/32	27 1/16	41 1/16	25
45	N	.....	HG	Al	60	1.25x3.57	5	3140	9 5/8	78	1045	Op	2.62x2.00	7	3.00x1.93	3.00x2.93	abce	14 mm	Op	1¾	1000	23 11/32	32 1/16	45 1/16	26
45	N	.....	HG	Al	63	1.25x4.07	5	3140	9 5/8	78	CS‡	Op	2.62x2.00	7	3.00x1.93	3.00x2.93	abce	14 mm	Op	1¾	1010	23 11/32	32 1/16	45 1/16	27
(h)	N	.....	HG	Al	61	1.25x4.07	5	E-4342	9 5/8	97	CS‡	Op	3.00x2.00	7	3.50x1.93	3.50x2.93	abce	14 mm	Op	1¾	1195	25 1/16	35 1/16	45 1/16	28
(h)	N	.....	HG	Al	64	1.25x4.20	5	E-4342	9 5/8	97	CS‡	Op	3.00x2.00	7	3.50x1.93	3.50x2.93	abce	14 mm	Op	1¾	1195	25 1/16	35 1/16	45 1/16	29
30	N	.....	HG	Al	98	1.50x4.43	4	3140	12	161	1045‡	Op	3.00x2.25	7	3.50x2.37	3.50x3.50	abce	14 mm	Op	2	1810	28¼	40 3/32	54½	30
30	N	.....	HG	Al	108	1.50x4.56	4	3140	12	161	1045‡	Op	3.00x2.25	7	3.50x2.37	3.50x3.50	abce	14 mm	Op	2	1810	28¼	40 3/32	54½	31
30	N	.....	HG	Al	119	1.50x4.81	4	3140	12	161	1045‡	Op	3.00x2.25	7	3.50x2.37	3.50x3.50	abce	14 mm	Op	2	1830	28¼	40 3/32	54½	32
30	N	.....	HG	Al	126	1.50x5.06	4	3140	12	161	1045‡	Op	3.00x2.25	7	3.50x2.37	3.50x3.50	abce	14 mm	Op	2	1830	28¼	40 3/32	54½	33
45	N	.....	HG	CI	35	.919x2.50	4	1040	7¼	33	1045‡	N	1.75x1.19	3	2.12x1.37	2.12x1.84	abceg	18 mm	Zen	7/8	460*	17 11/16	33½	30 11/16	34
45	N	.....	HG	CI	53	1.11x2.78	4	1040	8	57	1045‡	N	2.25x1.23	3	2.50x1.49	2.50x1.49	abceg	18 mm	Own	1	660*	18 1/16	34¼	33 1/16	35
45	E	MA	HG	CI	82	1.31x3.25	4	1040	10	93	1045‡	N	2.50x1.72	3	2.75x1.56	2.75x1.56	abceg	18 mm	Own	1¼	955*	20 5/8	38¾	37	36
45	E	MA	HG	CI	115	1.50x3.71	5	1040	11	124	1045‡	N	3.00x1.87	3	3.25x1.87	3.25x1.87	abcdeg	7/16-18	Own	1 3/8	1230*	23 11/16	42 1/16	40¼	37
45	E	.....	Ch	Al	25	.937x2.88	4	(bb)	8¼	34	(bb)	Y	2.00x1.31	4	2.62x1.54	2.62x2.09	abcde	14 mm	Zen	1¼	593*	24¼	33 7/8	42 1/16	38
45	E	MA	Ch	AL	25	.937x2.88	4	1040	8¼	33	(bb)	Y	2.00x1.31	4	2.62x1.54	2.62x2.09	abcde	14 mm	Zen	1¼	624*	24¼	33 7/8	42 1/16	39
45	E	.....	HG	AL	29	.919x2.95	4	(aa)	8 1/16	43	C1046	Y	2.12x1.68	4	2.70x1.12	2.70x1.23	abcdeg	14 mm	Zen	1¼	875*	23 11/16	40 11/32	47½	40
45	E	MA	HG	AI	31	.919x2.95	4	(aa)	8 1/16	43	C1046	Y	2.12x1.68	4	2.70x1.12	2.70x1.23	abcdeg	14 mm	Zen	1¼	874*	23 11/16	40 11/32	47 5/8	41
(n)	E	MI	HG	AI	52	1.10x3.54	4	(aa)	9	61	C1046‡	Y	2.75x1.68	7	3.25x1.34	3.25x1.84	abcdeg	14 mm	Hol	▲1¼	1067*	26 5/8	42 11/32	47 11/32	42
(n)	E	.....	HG	AL	48	1.10x3.54	4	(aa)	9	61	C1046	Y	2.75x1.68	7	3.25x1.34	3.25x1.83	abcdeg	14 mm	Hol	▲1¼	1090*	26 5/8	42 11/32	47 11/32	43
(n)	E	MI	HG	AI	56	1.10x3.79	4	(aa)	9	61	C1046‡	Y	2.75x1.68	7	3.25x1.34	3.25x1.84	abcdeg	14 mm	Hol	▲1¼	1076*	26 5/8	45 21/64	47 11/32	44
30	N	.....	HG	CI	19	.687x2.18	3	CS	5 1/16	15	CS	N	1.50x1.00	3	2.00x1.37	2.00x1.31	abcr	14 mm	Str	3/4	300*	18 1/16	17 5/8	29 3/16	45
45	N	.....	Ch	Al	12	.812x2.78	3	MS	9 1/16	34	1040	Y	1.93x1.31	3	2.33x1.75	2.33x1.92	abcr	14 mm	Str	1¼	495	21¼	24½	36	46
45	N	.....	Ch	Al	12	.812x2.78	3	MS	9 1/16	34	1040	Y	1.93x1.31	3	2.33x1.75	2.33x1.92	abcr	14 mm	Str	1¼	495	21¼	24½	36	47
(h)	N	.....	Ch	CNI	32	.937x2.87	3	DFS	7 1/16	32	DFS	Y	2.00x1.06	5	2.50x1.87	2.37x1.25	abcder	14 mm	Str	1½	860*	24	23 1/16	52½	48
30	N	.....	HG	Al	24	.875x2.79	4	CS	7	26	CS	N	2.00x1.25	7	2.50x1.93	2.50x1.87	abcr	7/16-18	Str	1½	620*	24	24 1/16	42 3/16	49
(b)	N	.....	Ch	CI	.....	.....	3	DFS	7 1/16	37	DFS	Y	2.12x1.28	4	2.62x1.56	2.50x1.26	abcder	14 mm	Str	1½	790*	24	23 1/16	47 1/16	50
30	N	.....	HG	Al	40	1.00x3.51	4	CS	8	38	CS	N	2.00x1.50	7	2.50x2.12	2.50x1.37	abcr	7/16-18	Str	1¾	925*	21 11/32	27 5/16	52 3/16	51
30	N	.....	HG	Al	.....	1.12x3.82	4	CS	9	51	CS	Y	2.25x1.12	7	2.68x2.75	2.68x1.75	abcr	14 mm	Str	2	1125*	24¼	29 5/16	56 3/16	52
45	N	.....	HG	Als	82	1.25x4.50	4	DFS	11	80	CS	N	2.25x2.23	7	2.50x3.91	2.50x2.62	abcder	14 mm	Str(2)	1¾	1570*	26 7/8	34 1/16	69 7/8	53
45	N	.....	SB	Als	82	1.25x4.50	4	DFS	11	80	DFS	N	2.25x2.23	7	2.50x3.91	2.50x2.62	abcder	18 mm	Str(2)	1¾	1500*	30 1/16	39 3/16	69 3/16	54
45	Bo	TA	HG	CAS	11	.750x2.48	3	DFS	.....	22	CAS	Y	2.12x1.57	4	2.40x1.83	2.40x2.54	abce	14 mm	Ford	.....	800	24 11/32	32	51 1/16	55
45	N	.....	SB	Als	82	1.25x4.50	4	CNS	11	184	CNS	Y	2.75x2.25	7	3.00x3.84	3.00x2.25	abcder	18 mm	Str(4)	2	2700*	42½	43 1/16	75 11/16	56
45	.....	.....	HG	CI	160	1.37x4.62	4	AS	12¼	96	CNS	N	1.87x2.75	4	2.25x5.00	2.25x4.00	abe	7/16-18	Zen	1½	1400	25	22¼	60 1/16	57
45	.....	.....	HG	CI	179	1.37x5.00	4	AS	12¼	96	CNS	N	1.87x2.75	4	2.25x5.00	2.25x4.00	abe	7/16-18	Zen	1½	1450	25	22¼	60 1/2	58
30	.....	.....	HG	Al	.....	.750x2.81	3	AS	6▲	.....	CNS	N	1.87x2.75	4	.....	.....	abe	7/16-18	Zen	1	440	17½	14 5/8	40 1/2	59
45	.....	.....	HG	CI	160	1.37x4.62	4	AS	12¼	96	CNS	N	2.00x1.50	3	2.00x2.18	2.00x2.62	abe	7/16-18	Zen	1½	1700	25¾	22¼	68 1/2	60
45	.....	.....	HG	CI	179	1.37x5.00	4	AS	12¼	96	CNS	N	1.87x2.75	5	2.25x5.00	2.25x4.00	abe	7/16-18	Zen	1½	1750	25¾	22¼	68 1/2	61
45	E	Spec	HG	CI	186	1.50x5.00	4	AS	13¼	172	CNS	N	1.87x2.75	5	2.25x5.00	2.25x4.00	.....	7/16-18	Zen	.....	2100	29¼	24	74 1/4	62
45	E	Spec	HG	CI	204	1.50x5.50	4	AS	13¼	172	CNS	N	2.75x2.75	5	3.00x3.50	3.00x3.50	abce	7/16-18	Zen	.....	2290	29¼	24	75	63
30	.....	.....	HG	Al	.....	1.00x3.50	3	AS	8	.....	CNS	N	2.75x2.75	5	3.00x3.50	3.00x3.50	abce	7/16-18	Zen	1¼	830	21½	17	51	64
30	E	Spec	HG	Al	40	1.00x3.50	4	DFS	8	36	Spec	N	2.00x1.50	7	2.50x1.31	2.50x2.12	abe	7/16-18	Zen	1½	820	21½	25	51	65
45	.....	.....	HG	CI	96	1.37x3.87	4	Dur	12¼	68	CNS	N	2.00x1.50	7	2.50x1.31	2.50x1.12	abe	7/16-18	Hol	.....	1700	24½	27¾	68	66
45	.....	.....	HG	CI	104	1.37x4.12	4	Dur	12¼	68	CNS	N	2.25x2.37	7	2.75x3.25	2.75x2.12	abce	7/16-18	Hol	.....	1700	24½	27¾	68	67
45	.....	.....	HG	CI	176	1.50x5.00	4	AS	13¼	164	CNS	N	2.12x2.75	7	2.62x5.00	2.62x4.00	abe	7/16-18	Hol	.....	2435	24½	29 3/8	78½	68
45	.....	.....	HG	CI	176	1.50x5.12	4	AS	13¼	164	CNS	N	2.75x2.75	7	3.00x3.37	3.00x3.25	abce	7/16-18	Hol	.....	2460	24½	29 3/8	78½	69
45	E	Spec	HG	CI	204	1.50x....	4	AS	13¼	172	CNS	N	2.75x2.75	7	3.00x3.50	3.00x3.50	abcde	7/16-18	Zen(2)	1¾	2950	31½	24	92	70
45	N	.....	HG	AL	11¾	.750x2.46	3	1040	6½	24	1040	N	1.93x1.37	2	310 (9)	310 (9)	PS	18 mm	Zen	7/8	350	18¾	19 3/16	24	71
45	E	.....	HG	CI	46	1.90x3.18	3	1040	7½	33	1045	Y	2.31x1.31	3	2.50x1.72	2.50x1.88	abeg	18 mm	Zen	7/8	550	18¾	31½	33	72
45	E	.....	HG	CI	54	.989x3.31	4	1045	7½	60	1045	N	2.37x1.75	3	2.43x1.62	2.48x1.88	abcg	14 mm	Zen	1 1/8	580	20	30	35 1/2	73
45	E	.....	HG	CI	70	.989x3.50	4	1045	7½	60	1045	N	2.37x1.75	3	2.43x1.62	2.48x4.50	abcg	14 mm	Zen	1 1/8	580	20	31	35 1/2	74
45	E	.....	HG	CI	70	.989x3.50	4	1045	8	60	1045	N	2.37x1.75	3	2.43x1.62	2.46x1.93	abeg	14 mm	Zen	1 1/8	580	20	30	35 1/2	75
45	E	.....	HG	CI	107	1.50x3.93	4	1040	12½	102	1045	N	2.87x2.37	3	3.00x3.12	3.00x4.12	abeg	18 mm	Zen	1¼	1645	23	43½	45 1/2	76
45	E	.....	HG	CI	128	1.50x4.37	4	1040	12½	102	1045	N	2.87x2.37	3	3.00x3.12	3.00x4.12	abcg	18 mm	Zen	1¼	1645	23	43½	45 1/2	77
45	E	.....	HG	Al	200	1.75x6.12	4	1045	14	236	1045	N	3.50x3.75	3	3.93x5.25	3.93x5.25	abcg	18 mm	Zen	1¾	2500	34	59	62	78
45	E	.....	HG	Al	200	1.75x6.12	4	1045	14	236	4140	N	3.50x3.75	4	3.93x5.25	3.93x5.25	abcg	18 mm	Zen(2)	1½	3750	34	59	80	79
45	E	.....	HG	Al	200	1.75x6.12	4	3140	15	••	1045	Y	3.50x3.75	3	3.93x5.25	3.93x5.25	abcg	18 mm	Zen(2)	2	3900	45	65	64	80
45	E	.....	HG	Al	200	1.75x6.12	4	3140	15	••	4140	N	3.50x3.75	4	3.93x5.25	3.93x5.25	abcg	18 mm	Zen(4)	1¾	5300	45	65	78	81
45	E	ACI	HG	CI	56	1.00x3.00	4	DFS	9	54	DFS	N	2.62x1.28	2	SAE212(7)	3.00x2.18	abeft	14 mm	Sch	1	X600	25¾	32 1/16	37 1/16	82
45	E	ACI	HG	CI	54	1.00x3.00	4	DFS	9	54	DFS	N	2.62x1.28	2	SAE313(9)	SAE314(9)	beft	14 mm	Sch	1	X600	25¾	32 1/16	37 1/16	83
45	E	ACI	HG	CI	54	1.00x3.00	4	DFS	8¾	45	DFS	N	2.62x1.28	3	SAE212(7)	3.00x2.18	abeft	14 mm	Sch	1	X670	25¾	32 1/16	37 1/16	84
45	E	ACI	HG	CI	80	1.25x3.87	4	DFS	10	90	DFS	N	2.57x2.22	3	2.91x2.18	2.91x3.50	abcefgt	7/16-18	Sch	1¼	X1150	25¾	41 11/16	45 1/16	85
45	E	ACI	HG	CI	104	1.25x3.87	4	DFS	11¼	100	DFS	N	2.75x2.09	3	2.91x2.18	2.91x3.50	abcefgt	7/16-18	Sch	1¼	X1250	25¾	47 5/8	45 1/16	86
45	E	ACI	HG	CI	80	1.25x3.87	4	DFS	10	90	DFS	Y	2.57x2.22	4	2.91x2.18	2.91x3.50	abcefgt	7/16-18	Zen	1½	X1800	28¾	45 1/16	59¼	87
45	E	ACI	HG	CI	104	1.25x3.87	4	DFS	11¼	100	DFS	Y	2.75x2.09	4	2.91x2.18	2.91x3.50	abcefgt	7/16-18	Zen	1½	X1900	28¾	48 5/8	59¼	88
45	Bo	ACI	HG	CI	598	2.18x3.87	4	DFS	20¼	656	DFS	N	3.50x4.37	5	3.50x5.22	3.50x6.37	abcdefgt	7/16-18	Zen	2	6530	52½	75 1/16	145¼	89
45	Bo	ACI	HG	CI	598	2.18x3.87	4	DFS	20¼	608	DFS	N	3.81x4.25	7	4.00x5.22	4.00x6.37	abcdefgt	7/16-18	Zen(2)	1¾	9800	52½	77	175 5/16	90

(For abbreviations see pages 154 and 155)

Line Number	Engine Make and Model	Designed for	Number of Cylinders, Bore and Stroke (In.)	Maximum Brake Hp. at Specified R.P.M.		Piston Displacement (Cu. In.)	Compression Ratio	Maximum Torque at R.P.M. (Lb. Ft.) with or without Accessories	Cylinder Liners—Type	Crankcase—Upper Half Integral with Cylinders	Valves									
				With Bare Engine	With Standard Accessories						Arrangement	Exhaust Head Material (S.A.E. No.)	Max. Head Diameter (In.)		Min. Port Diameter (In.)		Lift (In.)		Stem Diameter (In.)	
													Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust
1	Norberg....230	M	6-3 7/16x4 1/8	.....	88-3000	.....	.....	.....	.....	In	L	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	Norberg....320	M	6-4x4 1/4	.....	102-2400	.....	.....	.....	.....	In	L	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Norberg....340	M	6-4x4 1/2	.....	133-3000	.....	.....	.....	.....	In	L	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Oliver....60HC	Tr	4-3 1/16x3 1/2	.....	21.2-1500	120.6	6.00	75-1000 (EA)	W	In	I	Sil	1.18	1.12	1.06	1.00	.281	.281	.375	.375
5	Oliver....80HC	Tr	4-4 1/4x5 1/4	.....	46.1-1200	298.0	5.25	190-850 (EA)	W	In	I	Sil	2.00	1.75	1.75	1.50	.406	.406	.375	.375
6	Oliver....80KD	Tr	4-4 1/4x5 1/4	.....	45-1200	334.0	4.23	190-850 (EA)	W	In	I	Sil	2.00	1.75	1.75	1.50	.406	.406	.375	.375
7	Oliver....90	Tr	4-4 3/4x6 1/4	.....	56.7-1125	443.0	4.10	250-850 (EA)	W	In	I	Sil	2.31	2.31	2.00	2.00	.437	.437	.437	.437
8	Oliver....99	Tr	4-4 3/4x6 1/4	.....	65-1125	443.0	5.04	295-850 (EA)	W	In	I	Sil	2.31	2.00	2.00	1.75	.437	.437	.437	.437
9	Oliver....70KD	Tr	6-3 1/16x4 3/8	.....	31.3-1500	201.3	4.50	105-1150 (EA)	W	In	I	Sil	1.54	1.20	1.37	1.06	.390	.390	.375	.375
10	Oliver....70HC	Tr	6-3 1/16x4 3/8	.....	36.3-1500	201.3	6.50	105-1150 (EA)	W	In	I	Sil	1.54	1.20	1.37	1.06	.390	.390	.375	.375
11	Oliver....60KD	Tr	4-3 1/16x3 1/2	.....	18-1500	120.6	5.00	63-1000 (EA)	W	In	I	Sil	1.18	1.12	1.06	1.00	.281	.281	.375	.375
12	Packard....4M-2500	M	12-6 5/16x6 1/2	.....	1500-2500	2490	6.40	3155-2500 (EA)	N	Se	I	CNS	2.56	2.21	2.37	2.12	.529	.524	.558	.619
13	Reo....GC-245	T	6-3 1/16x4 1/4	89-3100	.....	245.0	6.20	191-1000 (BE)	N	In	L	Sil	1.78	1.62	.....	.....	.324	.324	.373	.373
14	Reo....GC-288	T	6-3 1/16x5	94-3000	.....	288.0	6.20	221-1200 (BE)	N	In	L	Sil	1.78	1.62	.....	.....	.324	.324	.373	.373
15	Reo....GC-310	T,B	6-3 5/16x5	101-3000	.....	310.0	6.20	241-900 (BE)	N	In	L	Sil	1.78	1.62	.....	.....	.324	.324	.373	.373
16	Scripps....34	M	4-3 1/4x4	.....	32-2200	134.0	5.20	92-2000 (BE)	.....	In	L	Sil	1.48	1.35	1.25	1.12	.250	.250	.310	.310
17	Scripps....36	M	4-3 1/4x4	.....	50-3200	134.0	.....	.....	.....	In	L	Sil	1.48	1.35	1.25	1.12	.250	.250	.310	.310
18	Scripps....F4	M	4-3 3/8x5	.....	81-3000	220.0	6.10	.....	.....	In	L	Sil	1.93	1.93	.....	.....	.406	.406	.375	.375
19	Scripps....96A-97A	M	6-3 1/16x4 1/8	.....	95-3000	221.0	5.85	187-1200 (BE)	.....	In	L	Sil	1.60	1.39	1.43	1.12	.281	.281	.312	.312
20	Scripps....F6	M	6-3 3/8x5	.....	120-3000	331.0	6.10	.....	.....	In	L	Sil	1.93	1.93	.....	.....	.406	.406	.375	.375
21	Scripps....104A-105A	M	6-4x4 1/4	.....	110-3000	320.0	5.63	239-1700 (BE)	.....	In	L	Sil	1.75	1.62	1.50	1.37	.322	.322	.373	.373
22	Scripps....152-153	M	6-4 1/4x5 1/4	.....	169-3000	447.0	6.20	.....	.....	Se	L	Sil	2.25	2.25	.....	.....	.375	.375	.437	.437
23	Scripps....154, 5, 6, 7	M	6-4 1/4x5 1/4	.....	155-3000	447.0	6.20	.....	.....	Se	L	Sil	2.25	2.25	.....	.....	.375	.375	.437	.437
24	Scripps....162-163	M	6-4 1/16x5 3/4	.....	166-2400	549.0	5.75	.....	.....	Se	L	Sil	2.37	2.28	.....	.....	.405	.375	.437	.437
25	Scripps....166-167	M	6-4 1/16x5 3/4	.....	145-2200	549.0	5.20	.....	.....	Se	L	Sil	2.56	2.28	.....	.....	.405	.375	.437	.437
26	Scripps....168-169	M	6-4 1/16x5 3/4	.....	175-2400	549.0	5.75	.....	.....	Se	L	Sil	2.37	2.28	.....	.....	.405	.375	.437	.437
27	Scripps....172A-173A	M	6-4 3/8x5 3/4	.....	200-2400	611.0	5.20	.....	.....	Se	L	Sil	2.37	2.28	.....	.....	.405	.375	.437	.437
28	Scripps....176A-177A	M	6-4 3/8x5 3/4	.....	155-2200	611.0	5.20	.....	.....	Se	L	Sil	2.56	2.28	.....	.....	.405	.375	.437	.437
29	Scripps....178-179	M	6-4 3/8x5 3/4	.....	200-2400	611.0	5.75	.....	.....	Se	L	Sil	2.37	2.28	.....	.....	.405	.375	.437	.437
30	Scripps....202-203	M	6-5x5 3/4	.....	212-2400	678.0	6.20	.....	.....	Se	L	Sil	2.56	2.28	.....	.....	.405	.375	.437	.437
31	Scripps....206-207	M	6-5x5 3/4	.....	170-2200	678.0	5.75	.....	.....	Se	L	Sil	2.56	2.28	.....	.....	.405	.375	.437	.437
32	Scripps....208-209	M	6-5x5 3/4	.....	225-2400	678.0	5.85	.....	.....	Se	L	Sil	2.50	2.37	.....	.....	.406	.375	.437	.437
33	Scripps....214-215	M	6-5x5 3/4	.....	185-2000	678.0	5.75	.....	.....	Se	L	Sil	2.50	2.37	.....	.....	.406	.375	.437	.437
34	Scripps....V43-90, V47-90	M	8-3 1/16x3 3/4	.....	90-3600	221.0	6.16	154-2200 (BE)	.....	In	L	Sil	1.53	1.53	.....	.....	.296	.296	.312	.312
35	Scripps....V43M-100, V47M-100	M	8-3.18x3 3/4	.....	100-3600	239.0	6.15	178-2200 (BE)	.....	In	L	CNS	1.53	1.53	.....	.....	.292	.292	.311	.311
36	Scripps....V63-130, V67-130	M	12-2 1/8x3 3/4	.....	130-3600	305.0	6.70	232-2200 (BE)	.....	In	L	CNS	1.53	1.53	.....	.....	.292	.292	.311	.311
37	Scripps....302-303	M	12-4 1/4x5 1/4	.....	304-2400	894.0	6.20	.....	.....	Se	L	Sil	2.25	2.25	.....	.....	.375	.375	.437	.437
38	Scripps....304-305	M	12-4 1/4x5 1/4	.....	250-2400	894.0	6.20	.....	.....	Se	L	Sil	2.25	2.25	.....	.....	.375	.375	.437	.437
39	Scripps....306-307	M	12-4 1/4x5 1/4	.....	280-2400	894.0	6.20	.....	.....	Se	L	Sil	2.25	2.25	.....	.....	.375	.375	.437	.437
40	Sterling....Petrel-L-6	M	6-5 1/4x6	.....	122-1200	780.0	4.60	558-1600 (EA)	N	Se	L	Sil	2.25	2.25	.....	.....	.573	.573	.437	.437
41	Sterling....Petrel-LC-6	Tr,Ind	6-5 1/4x6	.....	122-1200	780.0	4.60	558-1600 (EA)	N	Se	L	Sil	2.25	2.25	.....	.....	.573	.573	.437	.437
42	Sterling....Petrel-L-6	M	6-5 1/4x6	.....	157-1500	780.0	5.00	558-1600 (EA)	N	Se	L	Sil	2.25	2.25	.....	.....	.573	.573	.437	.437
43	Sterling....Petrel-LC-6	Tr,Ind	6-5 1/4x6	.....	157-1500	780.0	5.00	558-1600 (EA)	N	Se	L	Sil	2.25	2.25	.....	.....	.573	.573	.437	.437
44	Sterling....Petrel-L-6	M	6-5 1/4x6	.....	190-1800	780.0	5.60	558-1600 (EA)	N	Se	L	Sil	2.25	2.25	.....	.....	.573	.573	.437	.437
45	Sterling....Petrel-LC-6	Tr,Ind	6-5 1/4x6	.....	190-1800	780.0	5.60	558-1600 (EA)	N	Se	L	Sil	2.25	2.25	.....	.....	.573	.573	.437	.437
46	Sterling....Petrel-L-6	M	6-5 1/4x6	.....	214-2000	780.0	6.00	558-1600 (EA)	N	Se	L	Sil	2.25	2.25	.....	.....	.573	.573	.437	.437
47	Sterling....Petrel-LC-6	Tr,Ind	6-5 1/4x6	.....	214-2000	780.0	6.00	558-1600 (EA)	N	Se	L	Sil	2.25	2.25	.....	.....	.573	.573	.437	.437
48	Sterling....Petrel-L-6	M	6-5 1/4x6	.....	258-2500	780.0	6.00	558-1600 (EA)	N	Se	L	Sil	2.25	2.25	.....	.....	.573	.573	.437	.437
49	Sterling....Petrel-LC-6	Tr,Ind	6-5 1/4x6	.....	258-2500	780.0	6.00	558-1600 (EA)	N	Se	L	Sil	2.25	2.25	.....	.....	.573	.573	.437	.437
50	Sterling....Petrel Reduction-L-6	M	6-5 1/4x6	.....	180-1800	780.0	5.60	558-1600 (EA)	W	Se	L	Sil	2.25	2.25	.....	.....	.573	.573	.437	.437
51	Sterling....Viking II-T-6	M	6-8x9	.....	450-1200	2714.3	5.20	2015- 900 (EA)	W	Se	I	Sil	2.59	2.59	.....	.....	.556	.556	.557	.557
52	Sterling....Viking II-TC-6	Tr,Ind	6-8x9	.....	450-1200	2714.3	▲	2015- 900 (EA)	W	Se	I	Sil	2.59	2.59	.....	.....	.556	.556	.557	.557
53	Sterling....Viking II-TC-6	Tr,Ind	6-8x9	.....	345- 900	2714.3	▲	2015- 900 (EA)	W	Se	I	Sil	2.59	2.59	.....	.....	.556	.556	.557	.557
54	Sterling....Viking II-T-8	M	8-8x9	.....	600-1200	3619.0	5.20	2685- 900 (EA)	W	Se	I	Sil	2.59	2.59	.....	.....	.556	.556	.557	.557
55	Sterling....Viking II-TC-8	Tr,Ind	8-8x9	.....	600-1200	3619.0	▲	2685- 900 (EA)	W	Se	I	Sil	2.59	2.59	.....	.....	.556	.556	.557	.557
56	Sterling....Viking II-TC-8	Tr,Ind	8-8x9	.....	460- 900	3619.0	▲	2685- 900 (EA)	W	Se	I	Sil	2.59	2.59	.....	.....	.556	.556	.557	.557
57	Thorobred (10)....KK	M	2-3 5/16x4 3/4	11-1100	10-1100	105.9	4.00	54-900 (EA)	N	Se	L	NCI	1.62	1.62	1.43	1.43	.300	.300	.375	.375
58	Thorobred....Meteor CK	M	4-2 1/2x3 1/8	18-2600	16-2600	61.3	5.70	40-1700 (BE)	N	Se	L	Sil	1.12	1.00	.937	.812	.228	.250	.312	.312
59	Thorobred....DS	M	4-2 3/4x4	19-1800	16-1800	96.0	4.66	53-1300 (EA)	N	In	L	Sil	1.46	1.34	1.31	1.18	.250	.250	.312	.312
60	Thorobred....Arrowhead, Jr.	M	4-3 1/4x4	38-2600	35-2600	138.0	5.58	92-1200 (EA)	N	In	L	Sil	1.34	1.34	1.18	1.18	.281	.281	.312	.312
61	Thorobred....Arrowhead	M	4-3 5/8x4 1/2	40-2200	37-2200	196.0	5.50	128-900 (EA)	N	In	L	Sil	1.56	1.56	1.37	1.37	.281	.281	.375	.375
62	Thorobred....AA	M	4-3 3/4x4 3/4	27-1400	24-1400	210.0	4.00	113-700 (EA)	N	Se	L	NCI	1.62	1.62	1.43	1.43	.300	.300	.375	.375
63	Thorobred....F	M	4-4 1/16x5	39-1400	36-1400	259.0	4.00	142-1000 (EA)	N	Se	L	NCI	1.93	1.93	1.75	1.75	.300	.300	.375	.375
64	Thorobred....B	M	4-4 1/2x5	47-1800	44-1800	316.0	4.00	180-900 (EA)	N	Se	L	CNS	2.09	2.09	1.93	1.93	.300	.300	.375	.375
65	Thorobred....BB-4	M	4-4 1/2x6	59-1600	56-1600	382.9	4.00	234-1100 (EA)	N	Se	L	Sil	2.34	2.34	2.12	2.12	.300	.300	.437	.437
66	Thorobred....BC-4	M	4-5x7	80-1200	56-1200	550.0	4.00	292-900 (EA)	N	Se	L	Dia	2.75	2.75	2.37	2.37	.375	.375	.625	.625
67	Thorobred....BCS-4	M	4-5 3/4x7	75-1100	71-1100	727.0	4.00	409-900 (EA)	N	Se	L	Dia	2.75	2.75	2.37	2.37	.375	.375	.625	.625
68	Thorobred....BC-Super-4	M	4-6x7	82-1100	78-1100	791.7	4.00	466-700 (EA)	N	Se	L	Dia	2.75	2.75	2.37	2.37	.375	.375	.625	.625
69	Thorobred....Hiawatha Spec.	M	6-4x4 1/4	86-2800	83-2800	320.0	5.75	210-1000 (BE)	N	In	L	Sil	1.68	1.43	1.50	1.25	.375	.375	.375	.375
70	Thorobred....Arrow-Super-6	M	6-4 1/4x4 3/4	98-2500	95-2500	404.0	5.38	286-800 (EA)	N	In	L	Sil	1.93	1.43	1.75	1.25	.375	.375	.375	.375
71	Thorobred....BB-6	M	6-4 1/2x6	84-1725	80-1725	572.5	4.00	379-900 (EA)	N	Se	L	Sil	2.34	2.34	2.12	2.12	.300	.300	.437	.437
72	Thorobred....BBS-6	M	6-5x6	105-1500	101-1500	707.0	4.00	420-900 (EA)	N	Se	L	Sil	2.34	2.34	2.12	2.12	.300	.300	.437	.437
73	Thorobred....BC-6	M	6-5x7	94-1100	90-1100	825.0	4.00	452-1000 (EA)	N	Se	L	Dia	2.75	2.75	2.37	2.37	.375	.375	.625	.625
74	Thorobred....BCS-6	M	6-5 3/4x7	116-1100	112-1100	1091.0	4.00	596-880 (EA)	N	Se	L	Dia	2.75	2.75	2.37	2.37	.375	.375	.625	.625
75	Thorobred....BC-Super-6	M	6-6x7	128-1100	124-1100	1187.5	4.00	630-875 (EA)	N	Se	L	Dia	2.75	2.75	2.37	2.37	.375	.375	.625	.625
76	Twin Coach....FTC-180	B	6-4 1/4x4 3/4	180-2800	162-2800	404.0	7.30	380-1600 (EA)	D	In	I	Sil	1.77	1.68	1.62	1.50	.375	.375	.373	.373
77	Universal....Fisherman-WM	M	1-4 5/16x4 1/2	.....	8-1200	67.6	4.60	.....	N	In	L	Sil	1.87	1.87	.....	.....	.250	.250	.375	.375
78	Universal....Blue Jacket-AFTL	M	2-3x3 1/2	.....	12-2200	49.5	5.75	.....	N	In	L	Sil	1.68	1.68	.....	.....	.250	.250	.375	.375
79	Universal....Utility Four-BN	M	4-2 3/4x4	.....	25-2500	95.0	4.70	.....	N	In	L	Sil	1.25	1.25	.....	.....	.234	.234	.312	.312
80	Universal....Flexifour-FA	M	4-3x3 1/2	.....	40-3500	99.0	6.00	.....	N	In	L	Sil	1.68	1.68	.....	.....	.312	.312	.375	.375
81	Universal....Superfour-LSG	M	4-3 1/4x4 1/2	.....	50-3000	149.3	5.70	.....	N	Se	L	Sil	1.56	1.56	.....	.....	.312	.312	.375	.375
82	Universal..Blue Jacket Six-AMS	M	6-3x3 1/2	.....	60-3500	148.5	6.00	.....	N	In	L	Sil	1.68	1.68	.....	.....	.312	.312	.375	.375
83	Universal....Cruiser Six-HCS	M	6-3 1/16x4 1/2	.....	90-3000	280.0	5.75	.....	N	Se	L	Sil	1.68	1.68	.....	.....	.312	.312	.375	.375
84	Universal....Sea Lion Six-LHS	M	6-3 1/16x4 1/2	.....	110-3400	260.0	5.75	.....	N	Se	L	Sil	1.68	1.68	.....	.....	.312	.312	.375	.375
85	Universal....Cruiser Eight-GCE	M	8-3 1/16x4 1/2	.....	125-3000	347.0	5.75	.....	N	Se	L	Sil	1.68	1.68	.....	.....	.328	.328	.375	.375
86	Universal....Sea Lion Eight-LCE	M	8-3 1/16x4 1/2	.....	141-3400	347.0	5.75	.....	N	Se	L	Sil	1.68	1.68	.....	.....	.328	.328	.375	.375

(For abbreviations see pages 154 and 155)

VALVES				PISTONS				CONNECTING RODS			CRANKSHAFT										CARBURETOR			OVERALL DIMENSIONS (In.)			
Seats														MAIN BEARINGS													
Angle (Deg.)	Inserts Used?	Insert Material (S.A.E. No.)	Camshaft Drive—Type	Material	Weight with Pins, Rings, Bushings (Oz.)	Piston Pin—Diameter and Length (In.)	Number of Rings per Piston	Material	Center to Center Length (In.)	Weight with Bushing and Cap (Oz.)	Material	Counter Balance Used	Crank-Pin Diameter and Length (In.)	Number	Diameter and Length (In.) Front	Diameter and Length (In.) Rear	Oil Pressure to—	Spark Plug—Thread Size	Make	Size	Engine Weight without Carburetor or Ignition (Lb.)	Width	Height	Length	Line Number
.....	.....	.....	HG	Al	.....	.....	.....	.....	.....	.....	.....	Y	.....	.....	.....	.....	.....	.....	Zen	.....	775	24½	23	46½	1
.....	.....	.....	HG	Al	.....	.....	.....	.....	.....	.....	.....	Y	.....	.....	.....	.....	.....	.....	Zen	.....	1070	24½	25	50⅝	2
.....	.....	.....	HG	Al	.....	.....	.....	.....	.....	.....	.....	Y	.....	.....	.....	.....	.....	.....	Zen	.....	1125	24½	25	50⅝	3
45	E	CA	HG	CI	45	.875x2.70	4	1045	6	29	1045	N	2.00x1.37	3	2.25x1.43	2.25x1.43	a	18 mm	Sch	1	345	17	24½	28¼	4
45	E	CA	HG	CI	83	1.31x3.81	4	1045	10½	68	1045	N	2.37x2.12	3	2.37x2.12	2.37x2.75	abcde	⅞–18	Sch	1¼	850	21¼	34¾	37¾	5
45	E	CA	HG	CI	94	1.31x4.06	4	1045	10½	68	1045	N	2.37x2.12	3	2.37x2.12	2.37x2.75	abcde	⅞–18	Sch	1¼	850	21¼	34¾	37¾	6
45	E	CA	HG	CI	109	1.50x4.37	4	1040	12½	145	1045	N	2.75x2.50	3	3.00x2.81	3.00x3.75	abcde	⅞–18	Sch	1¼	1200	24¼	44	44¼	7
45	E	CA	HG	CI	109	1.50x4.37	4	1040	12½	145	1045	N	2.75x2.50	3	3.00x2.81	3.00x3.75	abcde	⅞–18	Sch	1¼	1200	24¼	44	44¼	8
(k)	E	CA	HG	CI	39	.859x2.62	4	1030	7	28	1045	N	1.93x1.12	4	2.25x1.23	2.25x1.62	ab	18 mm	Zen	1¼	550	17½	29	31½	9
(k)	E	CA	HG	CI	39	.859x2.62	4	1030	7	28	1045	N	1.93x1.12	4	2.25x1.23	2.25x1.62	ab	18 mm	Zen	1	530	17½	29	31½	10
45	E	CA	HG	CI	45	.875x2.70	4	1045	6	29	1045	N	2.00x1.37	3	2.25x1.43	2.25x1.43	a	18 mm	Sch	1	355	17	24½	28½	11
45	E	St	.....	Al	130	1.50x5.62	4	4340	11	Bf	CNM	Y	3.25x2.87	8	3.50x3.37	3.50x2.00	abcrs	18 mm	Hol	....	y2950	y45 5/32	y48 11/32	105 1/16	12
45	E	.....	Ch	Al	26	.983x3.03	4	1035	10½	50	1045	Y	2.19x1.50	7	2.62x1.94	2.62x2.47	abcde	14 mm	Zen	1¼	763*	19¼	30¼	36¼	13
45	E	.....	Ch	Al	26	.983x3.03	4	1035	10½	50	1045	Y	2.19x1.50	7	2.62x1.94	2.62x2.47	abcde	14 mm	Zen	1½	780*	19¼	30⅝	36¾	14
45	E	.....	Ch	Al	29	.983x3.13	4	1035	10½	50	1045	Y	2.19x1.50	7	2.62x1.94	2.62x2.47	abcde	14 mm	Zen	1½	785*	19¼	30⅝	36¾	15
30	.....	.....	HG	CI	29	.750x2.81	3	3140	6 3/16	21	1045	N	1.75x1.12	3	2.00x1.56	2.00x1.62	abr	⅞–18	Zen	1¼	410*	15½	21¾	32¾	16
30	.....	.....	HG	Al	.....	.750x2.81	3	AS	6 3/16	21	1045	N	1.75x1.12	3	2.00x1.56	2.00x1.62	abr	⅞–18	Zen	1¼	410*	15½	21¾	32⅝	17
45	.....	.....	HG	Al	33	1.12x3.25	4	Dur	10½	41	NS	N	2.18x1.87	3	2.25x2.62	2.25x2.62	abc	18 mm	Str	1¼	660*	23	28 1/16	45¼	18
30	.....	.....	HG	Al	.....	.875x2.90	4	CS	7	26	CS‡	N	2.00x1.25	.....	2.50x1.31	2.50x1.93	abr	14 mm	Zen	1½	675*	21	23½	41½	19
45	.....	.....	HG	Al	33	1.12x3.25	4	Dur	10½	41	NS	Y	2.18x1.87	4	2.25x2.62	2.25x2.62	abc	18 mm	Zen	1½	900*	19¾	28 11/16	58¼	20
45	.....	.....	HG	Al	40	1.00x3.51	4	1035	8	37	1045	N	2.00x1.50	7	2.50x1.31	2.50x2.12	abr	⅞–18	Zen	1¾	860*	21	26½	49¾	21
45	E	Tun	HG	Al	49	1.25x3.68	4	AS	10⅞	70	NS	Y	2.75x2.25	4	3.25x2.25	3.25x2.25	abc	18 mm	Hol	2	1050*	27¼	32 1/16	58¾	22
45	E	Tun	HG	Al	49	1.25x3.68	4	AS	10⅞	70	NS	Y	2.75x2.25	4	3.25x2.25	3.25x2.25	abc	18 mm	Str	2	1150*	24¼	29 1/16	58¾	23
45	.....	.....	HG	Al	50	1.37x3.84	4	AS	11¼	84	NS	Y	2.87x2.00	4	3.00x3.00	3.00x3.62	ab	18 mm	Hol	1½	1325*	26¼	36 1/16	66	24
45	.....	.....	HG	Al	50	1.37x3.84	4	AS	11¼	84	NS	Y	2.87x2.00	4	3.00x3.00	3.00x3.62	ab	18 mm	Sch	1½	1420*	33½	33 1/16	66	25
45	.....	.....	HG	Al	50	1.37x3.84	4	AS	11¼	84	NS	Y	2.87x2.00	4	3.00x3.00	3.00x3.62	ab	18 mm	Zen	2	1325*	33½	33 1/16	66	26
45	.....	.....	HG	Al	56	1.37x4.00	4	AS	11¼	84	NS	Y	2.87x2.00	4	3.00x3.00	3.00x3.62	ab	18 mm	Hol	2	1325*	26¼	37 1/16	66	27
45	.....	.....	HG	Al	56	1.37x4.00	4	AS	11¼	84	NS	Y	2.87x2.00	4	3.00x3.00	3.00x3.62	ab	18 mm	Sch	1½	1420*	33½	33 1/16	66	28
45	.....	.....	HG	Al	56	1.37x4.00	4	AS	11¼	84	NS	Y	2.87x2.00	4	3.00x3.00	3.00x3.62	ab	18 mm	Hol	2	1325*	33½	33 1/16	66	29
45	.....	.....	HG	Al	62	1.37x4.00	4	AS	11¼	84	NS	Y	2.87x2.00	4	3.00x3.00	3.00x3.62	ab	18 mm	Hol	2	1325*	28¼	37 1/16	66	30
45	.....	.....	HG	Al	62	1.37x4.00	4	AS	11¼	84	NS	Y	2.87x2.00	4	3.00x3.00	3.00x3.62	ab	18 mm	Sch	1½	1420*	33½	33 1/16	66	31
45	.....	.....	HG	Al	56	1.37x4.00	4	AS	11¼	85	CS	Y	2.87x2.25	4	3.00x3.00	3.00x3.62	abr	18 mm	Zen(2)	2	1325*	25	33 1/16	66	32
45	.....	.....	HG	Al	56	1.37x4.00	4	AS	11¼	85	CS	Y	2.87x2.25	4	3.00x3.00	3.00x3.62	abr	18 mm	Zen(2)	2	1450*	25	33 1/16	66	33
45	Bo	Tun	HG	Al	.....	.750x2.84	3	AS	7	17	CS	Y	2.00x1.75	3	2.50x1.37	2.00x1.96	abc	18 mm	Str(2)	1	660*	23½	32 5/16	42 5/16	34
45	Bo	Tun	HG	CAS	.....	.750x2.84	3	DFS	7	18	CAS	Y	2.14x1.75	3	2.50x1.37	2.00x1.96	abc	14 mm	Hol	1	700*	23½	32 7/16	43 7/16	35
45	Bo	Tun	HG	CAS	15	.750x2.48	3	DFS	7 11/16	22	CAS	Y	2.12x1.57	4	2.40x1.83	2.40x2.25	abc	14 mm	Str	1	.....	25 5/16	31 5/16	49 11/16	36
45	.....	.....	HG	Al	49	1.25x3.68	4	AS	10⅞	164 1/16	NS	Y	2.75x2.25	4	3.25x2.25	3.25x2.25	abc	18 mm	Hol	2	1700*	35	33½	58½	37
45	.....	.....	HG	Al	49	1.25x3.68	4	AS	10⅞	164 1/16	NS	Y	2.75x2.25	4	3.25x2.25	3.25x2.25	abc	18 mm	Str(2)	....	1700*	33¼	30 1/16	58½	38
45	.....	.....	HG	Al	49	1.25x3.68	4	AS	10⅞	164 1/16	NS	Y	2.75x2.25	4	3.25x2.25	3.25x2.25	abc	18 mm	Str(2)	2	1700*	33¼	30 1/16	58½	39
45	E	T-12	HG	Al	91	1.43x4.37	5	CS	12½	113	CNS	Y	2.50x2.12	7	3.00x1.75	3.00x2.87	abcdef	⅞–18	S-Z(2)	1½	1800	27½	34½	73⅜	40
45	E	T-12	HG	Al	91	1.43x4.37	5	CS	12½	113	CNS	Y	2.50x2.12	7	3.00x1.75	3.00x2.87	abcdef	⅞–18	S-Z(2)	1½	2150	27½	41	59½	41
45	E	T-12	HG	Al	91	1.43x4.37	5	CS	12½	113	CNS	Y	2.50x2.12	7	3.00x1.75	3.00x2.87	abcdef	⅞–18	S-Z(2)	1½	1880	27½	34½	73⅜	42
45	E	T-12	HG	Al	91	1.43x4.37	5	CS	12½	113	CNS	Y	2.50x2.12	7	3.00x1.75	3.00x2.87	abcdef	⅞–18	S-Z(2)	1½	2150	27½	41	59½	43
45	E	T-12	HG	Al	91	1.43x4.37	5	CS	12½	113	CNS	Y	2.50x2.12	7	3.00x1.75	3.00x2.87	abcdef	⅞–18	S-Z(2)	1½	1800	27½	34½	73⅜	44
45	E	T-12	HG	Al	91	1.43x4.37	5	CS	12½	113	CNS	Y	2.50x2.12	7	3.00x1.75	3.00x2.87	abcdef	⅞–18	S-Z(2)	1½	2150	27½	41	59½	45
45	E	T-12	HG	Al	91	1.43x4.37	5	CS	12½	113	CNS	Y	2.50x2.12	7	3.00x1.75	3.00x2.87	abcdef	⅞–18	S-Z(2)	1¾	1800	30½	34½	73⅜	46
45	E	T-12	HG	Al	91	1.43x4.37	5	CS	12½	113	CNS	Y	2.50x2.12	7	3.00x1.75	3.00x2.87	abcdef	⅞–18	S-Z(2)	1¾	2150	30½	41	59½	47
45	E	T-12	HG	Al	91	1.43x4.37	5	CS	12½	113	CNS	Y	2.50x2.12	7	3.00x1.75	3.00x2.87	abcdef	⅞–18	S-Z(2)	1¾	1800	30½	34½	73⅜	48
45	E	T-12	HG	Al	91	1.43x4.37	5	CS	12½	113	CNS	Y	2.50x2.12	7	3.00x1.75	3.00x2.87	abcdef	⅞–18	S-Z(2)	1¾	2150	30½	41	59½	49
45	E	T-12	HG	Al	91	1.43x4.37	5	CS	12½	113	CNS	Y	2.50x2.12	7	3.00x1.75	3.00x2.87	abcdef	⅞–18	S-Z(2)	1½	2900	27½	37¾	84¾	50
45	E	T-12	Ch	Al	328	2.00x7.00	4	CS	18	416	CNS	Y	4.00x3.12	9	4.00x3.37	4.00x5.50	abcdef	⅞–18	Zen(4)	2½	8400	44 3/16	61¾	121¾	51
45	E	T-12	Ch	Al	328	2.00x7.00	4	CS	18	416	CNS	Y	4.00x3.12	9	4.00x3.37	4.00x5.50	abcdef	⅞–18	Zen(4)	2½	7500	45	64⅞	100⅞	52
45	E	T-12	Ch	Al	328	2.00x7.00	4	CS	18	416	CNS	Y	4.00x3.12	9	4.00x3.37	4.00x5.50	abcdef	⅞–18	Zen(4)	2½	7500	45	64⅞	100⅞	53
45	E	T-12	Ch	Al	328	2.00x7.00	4	CS	18	416	CNS	Y	4.00x3.12	9	4.00x3.37	4.00x5.50	abcdef	⅞–18	Zen(4)	2½	9900	44 3/16	61¾	142⅜	54
45	E	T-12	Ch	Al	328	2.00x7.00	4	CS	18	416	CNS	Y	4.00x3.12	9	4.00x3.37	4.00x5.50	abcdef	⅞–18	Zen(4)	2½	9000	45	64⅞	121¾	55
45	E	T-12	Ch	Al	328	2.00x7.00	4	CS	18	416	CNS	Y	4.00x3.12	9	4.00x3.37	4.00x5.50	abcdef	⅞–18	Zen(4)	2½	9000	45	64⅞	121¾	56
45	N	.....	HG	CIA	64	1.10x3.25	3	1045	8½	43	1045	N	1.50x2.12	2	1.50x3.00	1.50x3.00	Splash	⅞–18	Str	1	415	19½	22 11/16	36¼	57
45	.....	.....	HG	AL	8	.625x2.12	3	1045	6	14	1045	N	1.56x1.25	2	ND3207	ND3207	ace	14 mm	Str	¾	240	18¼	19 1/16	27 7/16	58
45	N	.....	HG	CIA	19	.625x2.40	3	1045	8	27	1045	N	1.75x1.50	2	1.76x2.81	1.73x2.87	abe	⅞–18	Str	¾	330	15 7/16	21 1/16	38 1/16	59
45	N	.....	HG	CI	30	.875x2.75	3	1045	7¼	29	1045	N	1.75x1.25	3	2.12x1.43	2.12x1.18	abcde	18 mm	Str	1	490	21 3/16	24 7/16	35	60
45	E	CA	HG	CI	45	1.10x3.06	4	1045	8¾	46	1045	N	2.00x1.50	3	2.00x2.50	2.00x1.87	abcde	⅞–18	Str	1	610	19½	26¼	41	61
45	N	.....	HG	CIA	64	1.10x3.25	3	1045	8½	43	1045	N	1.50x2.12	3	1.50x3.00	1.50x3.00	abe	⅞–18	Str	1	620	19½	22 11/16	46 5/16	62
45	N	.....	HG	CIA	69	1.10x3.56	4	1045	10⅜	66	1045	N	2.00x2.25	3	2.00x4.18	2.00x3.50	abe	⅞–18	Str	1¼	830	20¼	26 11/16	54 3/16	63
45	N	.....	HG	CIA	89	1.10x3.93	4	1045	10⅜	66	1045	N	2.00x2.25	3	2.00x4.18	2.00x3.50	abe	⅞–18	Str	1½	830	20¼	26 11/16	54 3/16	64
45	N	.....	HG	CIA	82	1.25x3.87	4	1045	11⅜	87	1045	N	2.56x2.25	5	2.56x4.25	2.56x4.25	abce	⅞–18	Str	1½	1175	22¾	27 1/16	59 1/16	65
45	N	.....	HG	CIA	126	1.43x4.68	4	1045	13¼	168	1045	N	2.56x3.00	5	2.62x4.50	2.62x4.50	abcde	⅞–18	Str	2	1720	25⅞	37⅜	74 1/16	66
45	N	.....	HG	CIA	150	1.43x5.25	4	1045	13¼	168	1045	N	2.56x3.00	5	2.62x4.50	2.62x4.50	abcde	⅞–18	Str	2	1730	25⅞	37⅜	74 1/16	67
45	N	.....	HG	CIA	190	1.43x5.50	4	1045	13¼	168	1045	N	2.56x3.00	5	2.62x4.50	2.62x4.50	abcde	⅞–18	Str	2	1740	25⅞	37⅜	74 1/16	68
45	Y	CA	HG	AL	46	1.00x3.85	4	1045	8	40	1045	N	2.00x1.50	7	2.62x2.00	2.62x1.25	abcde	18 mm	Str	1¼	1016	22½	28¼	53 11/16	69
45	E	CA	HG	AI	48	1.00x4.00	4	1045	8¾	48	1045	N	2.25x1.50	7	2.62x2.75	2.62x1.62	abcde	14 mm	Str	1¼	1185	20¼	27 1/16	57 11/16	70
45	N	.....	HG	CIA	82	1.25x3.87	4	1045	11⅜	87	1045	N	2.56x2.25	7	2.56x4.25	2.56x4.25	abce	⅞–18	Str	1½	1475	23⅝	33¼	72 1/16	71
45	N	.....	HG	CIA	106	1.25x4.31	4	1045	11⅜	87	1045	N	2.56x2.25	7	2.56x4.25	2.56x4.25	abce	⅞–18	Str	2	1565	24½	33¼	72 1/16	72
45	N	.....	HG	CIA	126	1.43x4.68	4	1045	13¼	168	1045	N	2.56x3.00	7	2.62x4.50	2.62x4.50	abcde	⅞–18	Str	2	2330	27½	37⅜	91 1/16	73
45	N	.....	HG	CIA	150	1.43x5.25	4	1045	13¼	168	1045	N	2.56x3.00	7	2.62x4.50	2.62x4.50	abcde	⅞–18	Str	2	2380	27½	37⅜	91 1/16	74
45	N	.....	HG	CIA	190	1.43x5.50	4	1045	13¼	168	1045	N	2.56x3.00	7	2.62x4.50	2.62x4.50	abcde	⅞–18	Str	2	2380	27½	37⅜	91 1/16	75
45	N	.....	Ch	Al	52½	1.25x3.62	4	1040	8¾	68	1050	Y	2.49x1.68	7	2.62x1.81	2.62x1.81	ab	14 mm	.....	.....	950	42¼	29¼	48	76
45	N	.....	HG	CI	....	1.00x3.75	3	AI	8½	....	CS	Y	2.00x2.00	2	2.00x2.00	2.00x2.00	Splash	18 mm	Zen	⅞	200	15 1/16	24 3/16	17 1/16	77
45	N	.....	HG	Als	15	.750x2.56	4	CS	7¼	26	CS	Y	1.75x1.37	2	1.75x1.87	1.75x2.00	abce	18 mm	Zen	⅞	300	20 1/16	22 5/16	28 1/16	78
45	N	.....	HG	CI	19	.625x2.44	3	CS	7½	22	CS	N	1.50x1.75	2	1.50x2.75	1.50x2.75	abce	18 mm	Zen	1	347	17 1/16	21 1/16	34 11/16	79
45	N	.....	HG	AI	15	.750x2.56	4	AI	7¼	18	CS	Y	1.75x1.37	3	1.75x2.50	1.75x2.50	abce	18 mm	Zen	1	407	19 1/16	22 5/16	34 1/16	80
45	N	.....	HG	AI	20	.875x2.75	4	AI	8½	30	CS	N	2.00x1.75	3	2.00x2.50	2.00x2.50	abc	18 mm	Zen	1¼	524	18½	25 1/16	39 5/16	81
45	N	.....	HG	AI	15	.750x2.56	4	AI	7¼	18	CS	Y	1.75x1.37	4	1.75x2.50	1.75x2.50	abce	18 mm	Zen	1¼	529	24	20 3/16	43 7/16	82
45	N	.....	HG	AI	28	.875x3.00	4	AI	8½	28	CS	N	2.00x1.87	7	2.00x2.56	2.00x2.56	abce	18 mm	Str	1½	765	20 1/16	26 3/16	49 11/16	83
45	N	.....	HG	AI	28	.875x3.00	4	AI	8½	28	CS	N	2.00x1.87	7	2.00x2.56	2.00x2.56	abce	18 mm	Str	1¾	810	22 1/16	26 3/16	49 11/16	84
45	N	.....	HG	AI	28	.875x3.00	4	AI	8½	28	CS	N	2.00x1.87	9	2.00x2.56	2.00x2.56	abce	18 mm	Str	1¾	1067	21 1/16	26 1/16	62 5/16	85
45	N	.....	HG	AI	28	.875x3.00	4	AI	8½	28	CS	N	2.00x1.87	9	2.00x2.56	2.00x2.56	abce	18 mm	Str(2)	1½	1140	22¾	26 1/16	62 5/16	86

(For abbreviations see pages 154 and 155)

Line Number	ENGINE MAKE AND MODEL	Designed for	Number of Cylinders, Bore and Stroke (In.)	MAXIMUM BRAKE Hp. at Specified R.P.M.		Piston Displacement (Cu. In.)	Compression Ratio	Maximum Torque at R.P.M. (Lb. Ft.) with or without Accessories	Cylinder Liners—Type	Crankcase—Upper Half Integral with Cylinders	VALVES									
				With Bare Engine	With Standard Accessories						Arrangement	Exhaust Head Material (S.A.E. No.)	Max. Head Diameter (In.)		Min. Port Diameter (In.)		Lift (In.)		Stem Diameter (In.)	
													Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust
1	Waukesha.....(12) ICK	Ind	4-2½x3⅛	18-2600	14-2000	61.3	5.70	40-1700 (BE)	N	Se	L	Sil	1.12	.937	1.00	.812	.228	.250	.312	.312
2	Waukesha.....(12) FC	T,Tr,Ind	4-3¼x4	32-2600	24-1800	133.0	5.58	86-1200 (BE)	N	In	L	Sil	1.34	1.34	1.18	1.18	.281	.281	.312	.312
3	Waukesha.....(12) XAH	T,Ind	4-3⅝x4½	43-2200	36-1800	186.0	5.50	120-900 (BE)	N	In	L	Sil	1.56	1.56	1.37	1.37	.302	.275	.375	.376
4	Waukesha.....(12) 130GS	T,Tr,Ind	4-3⅝x5	47-2000	36-1500	221.0	6.12	144-800 (BE)	W	In	I	Sil	1.84	1.40	1.62	1.25	.445	.453	.434	.434
5	Waukesha.....(12) VIK	Tr,Ind	4-4½x5¼	58-1600	50-1400	334.0	4.30	224-900 (BE)	W	In	I	Sil	2.00	2.00	1.75	1.75	.400	.400	.375	.375
6	Waukesha.....(12) VRZG	T,Tr,Ind	4-4⅝x5¼	64-1600	56-1400	353.0	6.10	241-1100 (BE)	W	In	I	Sil	2.00	1.75	1.75	1.50	.450	.400	.375	.375
7	Waukesha.....(11) 6BZ	T,B,Ind	6-4x4¼	105-3000	89-3000	320.0	5.75	235-1000 (BE)	N	In	L	Sil	1.68	1.43	1.50	1.25	.375	.375	.375	.375
8	Waukesha.....(11) 140-GK	T,B,Ind	6-4½x5½	142-2250	127-2250	525.0	6.00	425-1000 (BE)	W	In	I	Sil	2.12	1.56	1.87	1.37	.531	.469	.434	.434
9	Waukesha.....(11) 6SRKR	T,B,Ind	6-4½x5⅛	126-2250	109-2250	517.0	5.50	369-600 (BE)	N	Se	L	Sil	2.16	1.65	1.87	1.37	.386	.375	.375	.375
10	Waukesha.....(11) 145-GK	T,B,Ind	6-5¼x6	186-2000	172-2000	779.0	6.20	590-1200 (BE)	W	In	I	Sil	2.37	1.84	2.12	1.62	.594	.531	.500	.500
11	Waukesha.....(12) 6WAK	T,B,Ind	6-5¼x6½	235-1800	193-1300	1197.0	5.20	865-900 (BE)	W	In	I	Sil	2.65	2.22	2.37	2.00	.656	.656	.500	.500
12	Waukesha.....(12) 6NK	Ind	6-7x8½	221-1050	200-950	1962.0	5.50	1330-600 (BE)	W	In	I	Sil	2.84	2.53	2.50	2.25	.718	.718	.562	.562
13	Waukesha.....(12) 6LRO	Ind	6-8⅛x8½	430-1050	374-900	2894.0	6.60	2260-800 (BE)	W	Se	I	Sil	3.50	3.00	3.25	2.75	.750	.840	.562	.562
14	Waukesha.....(11) 145GZ	T,B,Tr,Ind	6-5⅜x6	220-2000	206-2000	817.0	6.00	615-1200 (BE)	W	In	I	Sil	2.37	1.84	2.12	1.62	.594	.531	.497	.496
15	Waukesha.....6MZA	T,B,Ind	6-4¼x4¾	128-2800	113-2800	404.0	5.90	290-1000 (BE)	N	In	L	Sil	1.93	1.68	.....	.....	.375	.375	.375	.375
16	Waukesha▾▾.....(11) 140GK	T,B,Tr,Ind	6-4½x5½	176-2600	159-2600	525.0	6.40	435-800 (BE)	W	In	I	Sil	2.12	1.56	1.87	1.37	.540	.540	.437	.437
17	Waukesha▾▾.....(11) 140GZ	T,B,Tr,Ind	6-4⅝x5½	188-2600	171-2600	554.0	6.40	460-800 (BE)	W	In	I	Sil	2.12	1.56	1.87	1.37	.540	.540	.437	.437
18	Waukesha▾▾.....(11) 145GK	T,B,Tr,Ind	6-5¼x6	225-2400	207-2400	779.0	6.20	595-1400 (BE)	W	In	I	Sil	2.56	2.03	2.31	1.81	.600	.600	.500	.500
19	White.....100A	T,B	6-3⅞x4½	90-2800	.....	250.0	6.75	185-1400 (BE)	N	In	L	St	1.66	1.63	1.43	1.49	.....	.....	.373	.373
20	White.....120A	T,B	6-3⅞x4½	110-2600	.....	318.0	6.40	250-1200 (BE)	N	In	L	Sil°(x)	1.66	1.63	1.43	1.49	.....	.....	.373	.432
21	White.....140A	T,B	6-3⅞x5⅛	125-2600	.....	362.0	6.28	285-1400 (BE)	N	In	L	Sil°(x)	1.97	1.63	1.75	1.49	.381	.381	.373	.432
22	White.....150A	T,B	6-4x5½	135-2800	.....	386.0	6.40	315-1300 (BE)	N	In	L	Sil°(x)	1.97	1.63	1.75	1.49	.381	.381	.373	.432
23	White.....260A	T	6-4⅝x5	170-2800	.....	451.0	6.25	350-1200 (BE)	N	In	L	Sil°(x)	2.35	1.88	1.99	1.75	.423	.423	.434	.432
24	White.....280A	T	6-4⅝x5	184-2800	.....	504.0	6.00	405-1200 (BE)	N	In	L	Sil°(x)	2.35	1.88	1.99	1.75	.423	.423	.434	.432
25	White.....(H) 24A	B	12-4½x4¼	210-2800	.....	681.0	5.65	500-1200 (BE)	D	In	L	Sil°(x)	1.85	1.75	1.62	1.62	.....	.....	.401	.432
26	Willys.....4-63	C	4-3½x4⅜	63-4000	.....	134.2	6.48	105-2000 (BE)	N	In	L	3140	1.53	1.46	.....	.....	.359	.359	.373	.373
27	Wisconsin.....AK	M,Tr,Ind	1-2⅞x2¾	4.2-2400	4.2-2400	17.8	4.59	9.5-1700 (EA)	N	In	L	AUS	1.12	1.12	.937	.937	.187	.187	.310	.310
28	Wisconsin.....AHH	M,Tr,Ind	1-3⅝x4	9.2-2200	9.2-2200	41.3	4.50	26-1300 (EA)	N	Se	L	Sil	1.56	1.56	.812	1.25	.275	.275	.310	.310
29	Wisconsin.....VL-4	M,Tr,Ind	4-2¾x2¾	14.1-2600	14.1-2600	65.0	4.75	33.5-1600 (EA)	N	Se	L	AUS	1.13	1.13	.938	.938	.275	.275	.309	.309
30	Wisconsin.....VE-4	M,Tr,Ind	4-3x3¼	22-2600	22-2600	91.9	4.60	50-1600 (EA)	N	Se	L	AUS	1.31	1.31	1.12	1.12	.275	.275	.309	.309
31	Wisconsin.....VF-4	M,Tr,Ind	4-3¼x3¼	25-2400	25-2400	107.7	4.60	57-1600 (EA)	N	Se	L	AUS	1.31	1.31	1.12	1.12	.275	.275	.309	.309
32	Wisconsin.....VM-4	Tr,Ind	4-3¼x3½	28-2200	28-2200	132.7	4.75	72.5-1600 (EA)	N	Se	L	AUS	1.56	1.56	1.37	1.37	.275	.275	.309	.309
33	Wisconsin.....VP-4	Tr,Ind	4-3½x3½	31-2200	31-2200	154.0	4.75	86-1600 (EA)	N	Se	L	AUS	1.56	1.56	1.37	1.37	.275	.275	.309	.309
34	Wisconsin.....	.....	For other engines see SMALL GASOLINE POWER UNITS table																	

ABBREVIATIONS

‡—Weight including flywheel, housing and manifolds
*—Stellite faced
•—Weight complete with ignition and carburetor
••—Pressure also to Camshaft thrust bearing
■—Also available in reduction gear models
▾—Also available in R.H. rotation
▾▾—High Output
‡—Tocco hardened
♦—Weight per pair
†—Rated with generator and water pump, but no fan or muffler
▲—5.00 for gasoline, 6.00 for natural gas or butane
●—Special
●●—Two rods used; 1 clamped tight weighing 308 oz., and 1 loose outside of bearing weighing 240 oz.
♦—Dual Venturi
‡—Super-Charged engine
‡‡—8¾ in. for link rod; 12 in. for master rod
(2)—Two used (3)—Three used
(4)—Four used (7)—Roller Bearings
(8)—Minneapolis Moline Power Implement Co. (9)—Ball Bearings
(10)—Red Wing Motor Co.
(11)—Automotive Power Ratings
(12)—Industrial Power Ratings
a—Main Bearings
(aa)—AISI-8640-H ACI—Alloy Cast Iron
Al—Aluminum Alloy
Ala—Aluminum Alloy, Anodized
Als—Aluminum Alloy with Steel Strut
Alt—Aluminum Alloy (Tin coated)
AS—Alloy Steel AUS—Austenitic Stee
Ay—Alloy Iron B—Buses
b—Connecting Rods
(bb)—C1045GFQ
(BE)—Bare Engine BG—Bevel Gear
Bf—107-Blade, 133 Fork
Bo—Used in both Intake and Exhaust seats
c—Camshaft Bearings C—Cars
CA—Cast Alloy Car—Carter Carburetor
CAS—Cast Alloy Steel Ch—Chain
CHS—Chrome Nickel Silicon Steel
CI—Cast Iron CIA—Cast Iron, Anodized
CM—Chrome Molybdenum
CMT—Chromium Tungsten Steel
CNI—Chrome Nickel Iron
CNM—Chrome Nickel Molybdenum
CNS—Chrome Nickel Steel
CNT—Chrome Nickel Steel with Tungsten
CS—Carbon Steel
CSC—Carbon Steel, Case Hardened
CT—Cast Iron, Tin Plated
d—Wrist Pins D—Dry Liners
DC—Durachrome Castings
DFS—Drop Forged Steel
Dia—Diachrome
Dp—Duplex

British Motor Vehicle Exports

Eleven Months 1945 and 1946 Compared In Units and Their Value

Country of Destination	QUANTITIES Eleven months ended Nov. 30		VALUES Eleven months ended Nov. 30	
	1945	1946	1945	1946
Motor Cars (incl. Taxis), New				
To Eire	93	1,170	£18,759	£300,033
To Channel Islands	142	1,923	30,903	533,729
To Union of South Africa	34	4,311	7,428	1,112,341
To British India	23	5,011	6,135	1,269,840
To British Malaya	.....	1,975	.....	521,567
To Ceylon	76	1,170	17,855	296,135
To Australia	3	1,130	2,303	291,468
To New Zealand	155	5,688	30,835	1,212,503
To Canada	.....	622	.....	143,243
To Other British Countries	133	8,272	29,974	2,117,485
To Sweden	101	3,013	16,929	668,128
To Denmark	6	4,160	2,700	976,833
To Netherlands	11	2,713	5,610	655,904
To Switzerland	18	2,250	4,088	639,477
To Portugal	48	2,016	8,516	477,151
To Spain	.....	115	.....	38,455
To Egypt	5	1,136	1,546	315,562
To Argentine Republic	7	1,754	1,499	435,895
To Other Foreign Countries	115	12,078	40,575	3,153,483
Total	970	60,507	£225,655	£15,159,232
Commercial Vehicles, other than Tractors, New				
To Union of South Africa	67	801	39,913	278,862
To Australia	991	246	262,481	70,735
To Other British Countries	1,541	7,062	518,046	2,610,786
To Foreign Countries	2,077	14,569	899,521	5,034,391
Total	4,676	22,678	£1,719,961	£7,994,774
Tractors (other than agricultural Tractors) New				
Total	145	809	£30,555	£620,246

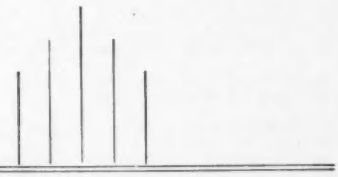
Engines—*Concluded*

VALVES				PISTONS				CONNECTING RODS			CRANKSHAFT															
Seats														MAIN BEARINGS									OVERALL DIMENSIONS (In.)			
Angle (Deg.)	Inserts Used?	Insert Material (S.A.E. No.)	Camshaft Drive—Type	Material	Weight with Pins, Rings, Bushings (Oz.)	Piston Pin—Diameter and Length (In.)	Number of Rings per Piston	Material	Center to Center Length (In.)	Weight with Bushing and Cap (Oz.)	Material	Counter Balance Used	Crank-Pin Diameter and Length (In.)	Number	Diameter and Length (In.) Front	Diameter and Length (In.) Rear	Oil Pressure to—	Spark Plug—Thread Size	CARBURETOR Make	CARBURETOR Size	Engine Weight without Carburetor or Ignition (Lb.)	Width	Height	Length	Line Number
45	N	.....	HG	Al	8	.625x2.12	4	1045	6	14	1045	N	1.56x1.25	2(9)	ND1207	ND1207	ac	14 mm	Op	5/8	143	14 11/16	20 1/2	21 11/16	1
45	E	CA	HG	CI	30	.875x2.75	4	1045	7 1/4	29	1045	N	1.75x1.06	3	2.12x1.18	2.12x1.43	abcde	18 mm	Op	1	290	19	26 3/4	27 1/4	2
45	E	CA	HG	CI	45	1.12x3.03	4	1045	8 3/4	48	1045	N	2.00x1.50	3	2.00x1.87	2.00x2.50	abcde	7/16-18	Op	1	385	17 7/8	27	32 1/8	3
(h)	E	CA	HG	CI	58	1.12x3.06	4	1045	8 3/4	57	1045	N	2.25x1.75	3	2.62x1.75	2.62x2.25	abcdeg	18 mm	Op	1 1/4	670	22 1/4	38 3/4	33 7/16	4
45	E	CA	HG	CI	85	1.31x4.06	4	1045	10 1/2	86	1045	N	2.37x2.12	3	2.37x2.12	2.37x2.75	abcdeg	7/16-18	Op	1 1/4	925	21 1/4	35	37 1/8	5
45	E	CA	HG	CI	96	1.31x4.06	4	1045	10 1/2	85	1045	N	2.37x2.12	3	2.37x2.31	2.37x2.75	abcdeg	18 mm	Op	1 1/4	1025	20 1/4	37 11/16	39 7/16	6
45	E	CA	HG	Al	46	1.00x3.85	4	1045	8	40	1045	N	2.00x1.50	7	2.62x1.25	2.62x2.00	abcde	18 mm	Op	1 1/2	706	19 1/4	31	39 1/2	7
(h)	E	CA	HG	Al	64	1.37x3.87	4	1045	10 1/4	85	1045	N	2.62x2.00	7	3.25x1.75	3.25x3.00	abcdeg	18 mm	Op	1 3/4	1390	23 5/8	41 11/16	50 3/4	8
30	E	CA	HG	Al	70	1.37x4.25	4	1045	10 1/4	83	1045	N	2.75x1.75	7	3.00x1.87	3.00x3.00	abcde	7/16-18	Op	1 3/4	1225	24 1/8	39 5/8	46 7/16	9
(h)	E	CA	HG	Al	103	1.62x4.87	4	1045	11 3/4	133	1045	N	3.00x2.25	7	3.50x2.00	3.50x3.50	abcdeg	18 mm	Op	2	1810	25 3/4	46 1/8	55 11/16	10
(h)	E	CA	HG	CI	292	1.87x5.50	4	1045	13 1/4	195	1045	N	3.37x2.37	7	4.00x2.56	4.00x3.56	abcdeg	18 mm	Op	2 1/2	3050	30 5/8	50 7/8	65 5/16	11
(h)	E	CA	HG	CI	304	2.00x6.00	4	1045	15 3/4	314	1045	N	3.25x2.75	7	3.75x3.75	3.75x5.50	abcdeg	18 mm	Op	2 1/2	5900	31 11/16	61 1/16	76 5/16	12
30	E	CA	HG	CI	776	2.25x7.75	5	1045	18 5/8	474	1045	N	4.00x3.75	7	4.25x4.81	4.25x5.50	abcdeg	7/16-18	Op(2)	2 1/2	9200	48 1/2	65	95 1/2	13
(h)	E	TS	HG	Al	110	1.62x4.50	4	1045	11 3/4	133	1045	N	3.00x2.25	7	3.50x2.00	3.50x3.50	abcdeg	14mm(v)	Op	1 3/4	1810	25 3/4	48 5/8	55 11/16	14
45	E	CA	HG	Al	45	1.00x4.00	4	1045	8 3/4	48	1045	N	2.25x1.50	7	2.62x1.62	2.62x2.75	abcde	18 mm	Op	1 3/4	920	20 7/8	34 3/4	43 11/16	15
(h)	E	TS	HG	Al	64	1.37x3.87	4	1045	10 1/4	85	C1046	Y	2.62x2.00	7	3.25x1.59	3.25x3.00	abcdeg	18 mm	Op	1 3/4	1390	23 5/8	41 11/16	50 3/4	16
(h)	E	TS	HG	Al	67	1.37x3.87	4	1045	10 1/4	85	C1046	Y	2.62x2.00	7	3.25x1.59	3.25x3.00	abcdeg	18 mm	Op	1 3/4	1390	23 5/8	41 11/16	50 3/4	17
(h)	E	TS	.....	Al	103	1.62x4.50	4	1045	11 3/4	.....	C1046	Y	3.00x2.25	7	3.50x2.00	3.50x3.50	abcdeg	18 mm	Op	2	1810	25 3/4	46 1/8	57 1/8	18
45	E	St	HG	Al	38	1.00x3.03	4	1040	9 15/16	40	1050	Y	2.18x1.34	7	3.00x1.84	3.00x1.93	abcde	14 mm	Str(Dp)	1 1/4	982	29 3/8	40 5/8	44 1/4	19
45	E	St	HG	Al	45	1.00x3.46	4	1040	9 15/16	52	1050	Y	2.18x1.34	7	3.00x1.84	3.00x1.93	abcde	14 mm	Str(Dp)	1 1/4	1003	29 3/8	40 5/8	44 1/4	20
45	E	St	HG	Al	45	1.00x3.46	4	1040	9 15/16	52	1050	Y	2.18x1.34	7	3.00x1.84	3.00x1.93	abcde	14 mm	Str(Dp)	1 1/4	1060	29 3/8	40 5/8	44 1/4	21
45	E	Spec©	HG	Al	55 1/2	1.18x3.62	4	1040	9 15/16	52	1050	Y	2.18x1.34	7	3.00x1.84	3.00x1.93	abcdep	14 mm	Hol(dp)	1 1/4	1300*	29 3/8	40 5/8	44 1/4	22
45	E	Spec©	HG	Al	54	1.24x3.93	4	3130	9 1/4	75	1050	Y	2.50x2.06	7	3.25x1.68	3.25x2.00	abcdeps	18 mm	Hol(dp)	1 5/8	1409*	34	37	51	23
45	E	Spec©	HG	Al	62	1.24x3.93	4	3130	9 1/4	75	1050	Y	2.50x2.06	7	3.25x1.68	3.25x2.00	abcdeps	18 mm	Hol(dp)	1 5/8	1442*	34	37	51	24
(h)	E	St	HG	Al	30	1.16x3.31	5	1040	8 3/32	.....	1050	Y	2.43x2.31	7	2.87x2.09	2.87x2.40	abcdef	18 mm	Zen(dp)	.....	2275*	.....	.....	.....	25
45	N	N	HG	Al	24	.812x2.78	3	1035	9 3/16	34	1040	Y	1.93x1.30	3	2.33x1.92	2.33x1.75	abce	14 mm	Car	1 1/4	364	19	26 3/8	26 1/4	26
45	E	Mo	HG	Al	10	.625x2.37	4	Al	6	6	1045	Y	1.00x1.00	2	Timken	Timken	.....	18 mm	Str	5/8	70*	17 3/4	16 3/4	15	27
45	Bo	Mo	HG	Al	26	.937x3.00	4	1035	9 1/2	33	1045	Y	1.37x1.37	2	Timken	Timken	.....	18 mm	Str	1	180*	18 7/8	24 3/8	18 1/16	28
45	Bo	MI	HG	Al	11.5	.625x2.06	4	1035	6 1/2	16	1045	N	1.62x1.00	2	Timken	Timken	PS	18 mm	Zen	3/4	233*	18	19 5/8	23 1/16	29
45	Bo	MI	HG	Al	16	.750x2.56	4	1035	8 5/8	22	1045	N	1.75x1.12	2	Timken	Timken	PS	18 mm	Zen	5/8	285*	21 1/2	25 1/2	25 5/8	30
45	Bo	MI	HG	Al	18.2	.750x2.56	4	1035	8 5/8	22	1045	N	1.75x1.12	2	Timken	Timken	PS	18 mm	Zen	7/8	285*	21 1/2	25 1/2	25 5/8	31
45	Bo	MI	HG	Al	24.5	.937x2.75	4	1035	8 5/8	29	1045	N	1.75x1.25	2	Timken	Timken	PS	18 mm	Zen	1	418*	24	25 3/4	28 1/8	32
45	Bo	MI	HG	Al	28	.937x2.75	4	1035	8 5/8	29	1045	N	1.75x1.25	2	Timken	Timken	PS	18 mm	Zen	1	418*	24	25 3/4	28 1/8	33
For other engines see SMALL GASOLINE POWER UNITS table																									34

ABBREVIATIONS—Cont.

Dur—Duralumin
c—Timing Gears or Chain
E—Used on Exhaust valve seats
(EA)—Engine with Standard Accessories
Ecl—Eclipse
Ens—Ensign
f—Accessories drive
FA—Fire Apparatus
g—Rocker Arms and Shafts
(h)—Intake 30°, Exhaust 45°
(H)—Horizontal Motor
HC—Helical Gear and Chain
HG—Helical Gear
HH—Horizontal in Head (Valves)
Hol—Holley Carburetor
HS—High Speed Steel
I—In Head (Valves)
In—Integral
Ind—Industrial
Jad—Jadson 1-S
JM—Jadson 1-S material
(k)—Intake 30°, Exhaust 44°
L—Valves at Side (L-Head)
M—Marine
MA—Molybdenum Alloy
MI—Moly Iron
ML—Mechanical Lubricator System
Mo—Molybdenum
MS—Manganese Stee
n—Intake 15°, Exhaust 44°
N—No or none
NCI—NickelCast Iron
NIS—Nickel Cast Iron, Stellited
NS—Nickel Steel
Oh—Overhead Valves
Op—Optional
PS—Pump Splash system
P—Hydraulic Valve Lifters and Cylinder Walls
r—Reverse Gear
RC—Rail Cars
s—Fan Drive Gears
SA—Special Alloy
SB—Spiral Bevel Gear
Sch—Schebler Carburetor
Se—Separate
SG—Spur Gear
Sil—Silcrome Steel
Spec—Special
SS—Semi-Steel
St—Stellite Steel
Str—Stromberg Carburetor
SZ(2)—1 Each, Stromberg & Zenith
t—Tappets and Valve Mechanism
T-12—Thompson Products No. 12
T—Valves, Opposite (T-Head)
T—Trucks
TA—Tungsten Alloy
Til—Tilotson Carburetor
Tr—Tractors
TS—Tool Steel
Tun—Tungsten Steel
V—Dual
W—Wet Liners
WA—Wausau Alloy
WM—Wausau Cast Moly #1
WR—Wilcox-Rich-EA5
(x)—Sodium Cooled
x—Complete with SAE housing
y—With reverse gear
Y—Yes
Zen—Zenith Carburetor
ZC—Zenith or Carter

Country of Destination	QUANTITIES Eleven months ended Nov. 30		VALUES Eleven months ended Nov. 30	
	1945	1946	1945	1946
Motor Cars and Commercial Vehicles, Used				
Total	2,194	9,683	£654,327	£3,010,436
Chassis for motor vehicles with engines (with or without fitted tires)				
Of Motor Car Type—				
To Australia	.....	13,001	.....	1,678,750
To Other British Countries	.....	1,445	.....	310,987
To Foreign Countries	.....	1,102	.....	286,114
Total	.....	15,548	.....	£2,275,851
Other—				
To Eire	21	819	7,791	394,721
To Channel Islands	8	75	2,880	24,990
To Union of South Africa	10	1,158	4,182	981,018
To British India	.....	1,331	.....	543,646
To British Malaya	.....	726	.....	241,611
To Ceylon	14	40	44,75	32,574
To Australia	209	3,175	68,740	1,077,740
To New Zealand	158	1,004	49,200	312,198
To Canada	.....	5	.....	1,993
To Other British Countries	24	2,206	16,901	867,923
To Sweden	.....	437	.....	132,037
To Denmark	2	1,495	561	678,815
To Netherlands	.....	511	.....	412,151
To Switzerland	3	228	1,026	65,670
To Portugal	4	823	1,200	388,996
To Spain	.....	209	.....	117,178
To Egypt	.....	60	.....	18,916
To Argentine Republic	32	1,817	10,680	927,771
To Other Foreign Countries	191	4,121	48,715	1,740,849
Total	676	20,240	£216,351	£8,960,797

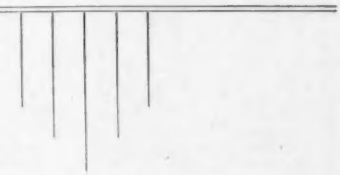


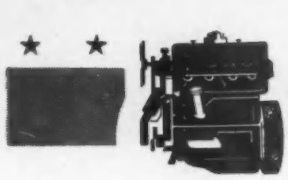
British Motor Vehicle Exports

Eleven Months

1945 and 1946 Compared

In Units and Their Value



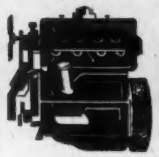


AUTOMOTIVE DIESEL AND

Line Number	ENGINE MAKE AND MODEL	Built Under License from	Designed for	Type	Number of Cylinders Bore and Stroke (In.)	Cylinder Liners—Type	Cycle	Piston Displacement (Cu. In.)	GENERAL: With Bare Engine — Maximum Brake Hp. at Specified R.P.M.	GENERAL: With Standard Accessories — Max. Intermittent Hp. at Specified R.P.M.	GENERAL: With Standard Accessories — Continuous Sustained Hp. at Specified R.P.M.	Compression Ratio - to 1	Max. Combustion Pressure (Lb. per Sq. In.)	B.M.E.P. at Continuous Hp. (Lb. per Sq. In.)	Weight per Continuous Hp. (Lb.)	Max. Torque in Lb. Ft. at Specified R.P.M.	Shipping Weight (Lb.) — Automotive or Industrial	Shipping Weight (Lb.) — Marine	VALVES — Arrangement	VALVES — Intake Port Diameter and Lift (In.)
1	Atlas Imperial...1LN29	.....	I	AC	1-3½x3¾	W	4	29	6.5-1800	5.7-1800	5-1800	16.50	....	76	72.8#	15-1100	364	.....	VI	1.06-.390
2	Atlas Imperial...3LN29	.....	I	AC	3-3½x3¾	W	4	87	20-1800	16.5-1800	15-1800	16.50	....	76	40.3#	45-1100	604	.....	VI	1.06-.390
3	Atlas Imperial..4ES253	.....	I,M	DI	4-6¼x8¼	W	4	1012	.....	.....	90-900	13.8	700	78	62.2	526-900	5600	6400	VI	2.31-.562
4	Atlas Imperial..6ES253	.....	I,M	DI	6-6¼x8¼	W	4	1518	.....	.....	135-900	13.8	700	78	56.2	789-900	7500	8260	VI	2.31-.562
5	Buda.....4-BD-153	Lanova	T,Tr,M,I	AC	4-3⅞x4½	W	4	153	39-2400	30-2400	26-2000	15.30	725	73	29.2	104-1400	760	1000	VI	1.37-.429
6	Buda.....6BD-230	Lanova	T,Tr,M,I	AC	6-3⅞x4½	W	4	230	58-2400	46-2400	40-2000	15.30	725	73	21.5	156-1400	860	1200	VI	1.37-.429
7	Buda.....6-DT-317	Lanova	C,T,Tr,B	AC	6-3½x5½	D	4	317	90-2300	75-2300	52.5-1800	14.50	725	73	21.6#	185.4-1500	1133	.....	VI	1.37-.486
8	Buda.....6-DTM-317	Lanova	M	AC	6-3½x5½	D	4	317	90-2300	75-2100	56-1800	14.50	725	78	22.3	195-1500	.....	1250	VI	1.37-.486
9	Buda.....6-DT-468	Lanova	T,Tr,B	AC	6-4¼x5½	D	4	468	113-2000	89-2000	68-1600	14.20	725	72	21.1#	268.5-1100	1435	.....	VI	1.59-.476
10	Buda.....6-DTM-468	Lanova	M	AC	6-4¼x5½	D	4	468	113-2000	97-1800	75-1600	14.20	725	79	23.7	308-1100	.....	1775	VI	1.59-.476
11	Buda.....6DC-1879	Lanova	R,I	AC	6-6¾x8¾	W	4	1879	248-1100	203-1100	155-900	13.00	725	73	44.8#	1043-850	6950	.....	VI	2.50-.687
12	Buda.....6DCM-1879	Lanova	M	AC	6-6¾x8¾	W	4	1879	248-1100	222-1100	186-1000	13.00	725	78	34.9	1140-650	.....	6500	VI	2.50-.687
13	Buda.....6-PH-D1879	Lanova	I	AC	6-6¾x8¾	W	4	1879	248-1100	203-1100	155-900	13.00	725	73	58.1#	1043-650	9000	.....	VI	2.50-.687
14	Buda.....6-DC-844	Lanova	T,Tr,B,I	AC	6-5¼x6½	W	4	844	180-1800	150-1800	96-1200	13.00	725	75	29.8#	460-1100	2350	.....	VI	2.00-.540
15	Buda.....6-DCM-844	Lanova	M	AC	6-5¼x6½	W	4	844	180-1800	159-1800	112-1300	13.00	725	81	34.8	518-1100	.....	3900	VI	2.00-.540
16	Buda.....*6-DCS-844	Lanova	T,B,Tr,I	AC	6-5¼x6½	W	4	844	225-1800	185-1800	140-1400	.....	725	94	.....	530-1250	.....	.....	VI	2.00-.540
17	Buda.....6-DCSM-844	Lanova	M	AC	6-5¼x6½	W	4	844	225-1800	195-1800	147-1400	.....	725	99	.....	635-1250	.....	.....	VI	2.00-.540
18	Buda.....6-DC-1125	Lanova	T,R,I	AC	8-5¼x6½	W	4	1125	239-1800	197-1800	143-1400	13.00	725	75	.....	570-1100	.....	.....	VI	2.00-.540
19	Buda.....8DCM-1125	Lanova	M	AC	8-5¼x6½	W	4	1125	239-1800	210-1800	160-1400	13.00	725	80	.....	695-1100	.....	.....	VI	2.00-.540
20	Buda.....*8DCS-1125	Lanova	T,Tr,I	AC	8-5¼x6½	W	4	1125	300-1800	242-1800	184-1400	.....	725	93	.....	700-1250	.....	.....	VI	2.00-.540
21	Buda...*8DCSM-1125	Lanova	M	AC	8-5¼x6½	W	4	1125	300-1800	260-1800	193-1400	.....	725	100	.....	850-1250	.....	.....	VI	2.00-.540
22	Buda.....4DC-845	Lanova	I	AC	4-5⅜x6½	W	4	845	119-1400	94-1400	71-1200	.....	725	73	.....	456-1000	.....	.....	VI	2.00-.540
23	Buda.....*6DCS-1879	Lanova	I	AC	6-6¾x8¾	W	4	1879	330-1200	275-1200	198-900	.....	725	92	.....	1580-700	.....	.....	VI	2.50-.687
24	Buda...*6DCSMR-1879	Lanova	M	AC	6-6¾x8¾	W	4	1879	330-1200	275-1200	198-900	.....	725	92	.....	1580-700	.....	.....	VI	2.50-.687
25	Caterpillar.....D-17000	Own	M,I,R	PC	8-5¼x8	W	4	1682	‡182-950	174-950	131-950	15.7	....	68	61.1#	1042-700	8000	9538#	VI	2⅝-.468
26	Caterpillar.....D-13000	Own	Tr,M,R,I	PC	6-5¼x8	W	4	1246	‡150-1000	145-1000	115-1000	15.7	....	73	48.8#	842-800	5610	7450#	VI	2⅝-.468
27	Caterpillar.....D-8800	Own	Tr,M,I	PC	4-5¼x8	W	4	831	‡102-1000	98-1000	79-1000	15.7	....	75	55.7#	561-800	4400	5530#	VI	2⅝-.468
28	Caterpillar.....D-4600	Own	Tr,M,I	PC	6-4¼x5½	W	4	468	‡82-1600	78-1600	62-1600	16.5	....	66	48.4#	300-1100	3000	3780#	VI	1⅜-.375
29	Caterpillar.....D-4400	Own	Tr,M,I	PC	4-4¼x5½	W	4	312	‡55-1600	52-1600	41-1600	16.5	....	65	58.5#	194-1100	2400	3090#	VI	1⅜-.375
30	Caterpillar.....D-3400	Own	Tr,M,I	PC	4-3¾x5	W	4	221	‡34-1650	32.5-1650	25.2-1650	17.0	....	55	75.0#	127-1100	1830	2450#	VI	1½-.331
31	Climax.....D-148	Own	I,M	PC	2-4¼x5¼	W	4	149	22-1200	18-1200	18-1200	16.00	450	80	10.0	97-600	2000	2500	VI	1.75-.422
32	Climax.....D-297	Own	I,M	PC	4-4¼x5¼	W	4	298	44-1200	36-1200	36-1200	16.00	450	80	8.0	197-600	3000	3500	VI	1.75-.422
33	Continental....GD-157	Own	I	TC	4-3⅜x4⅜	W	4	157	37.6-2000	30-2000	25-1800	15	....	79	24.2	109-1250	605	.....	VI	1.18-.375
34	Continental....HD-243	Own	I	TC	4-3¾x5½	W	...	243	53.1-2000	45-2000	39.8-1800	14.5	....	79	21.1	169.5-1200	840	.....	VI	1.37-.328
35	Continental....HD-260	Own	I	TC	4-3⅞x5½	W	...	260	57.0-2000	48.5-2000	41.6-1800	15	....	79	20.2	181-1200	840	.....	VI	1.37-.328
36	Continental....TD-427	Own	.....	TC	6-4⅛x4⅞	N	...	427	103.-2000	87.2-2000	74.9-1800	15	....	79	17.4	298-1200	1300	.....	VI	1.71-.437
37	Continental....RD-572	Own	I	TC	6-4¾x5⅜	D	...	572	137-2000	118-2000	96.5-1800	15	....	79	19.1	400-1200	1845	.....	VI	1.87-.546
38	Continental....KD-330	Own	I	TC	4-4x4⅜	N	...	330	79.0-2000	67.2-2000	55.4-1800	15	....	79	20.2	229.5-1200	1115	.....	VI	1.56-.437
39	Continental...KD-6330	Own	T,B,Tr	TC	6-4x4⅜	N	...	329	86.2-2400	.....	73-2400	15	....	106	14.9	282-1200	1090	.....	VI	1.56-.437
40	Continental....TD-6427	Own	T,B,Tr	TC	6-4⅛x4⅞	N	...	427	112-2400	.....	95-2400	15	....	106	13.4	300-1200	1270	.....	VI	1.71-.437
41	Continental...RD-6572	Own	T,B,Tr	TC	6-4¾x5⅜	D	...	572	150-2200	.....	127-2200	15	....	105	14.1	400-1200	1785	.....	VI	1.87-.546
42	Cummins.....A	Own	T,B,Tr,M,R,I	DI	6-4x5	W	4	377	100-2200*	85-2200*	57-1600*	18.00	750	75	24.2	275-1200	1830	2030	VI	1.37-.406
43	Cummins.....H	Own	T,B,Tr,M,R,I	DI	4-4⅞x6	W	4	448	100-1800*	83-1800	50-1200*	17.00	750	74	32.8	340-800	1930	3315	VI	1.75-.500
44	Cummins.....H	Own	T,B,Tr,M,R,I	DI	6-4⅞x6	W	4	672	150-1800*	125-1800	93-1600*	17.00	750	72	25.5	500-800	2540	3670	VI	1.75-.500
45	Cummins.....*HS	Own	T,B,Tr,M,R,I	DI	6-4⅞x6	W	4	672	200-1800*	175-1800	130-1600*	14.00	925	101	19.8	625-1400	3000	4040	VI	1.75-.500
46	Cummins.....NH-600	Own	T,B,Tr,M,R,I	DI	6-5½x6	W	4	743	200-2100	174-2100	130-1800	13.50	....	76	19.2	575-1400	2500	4000	VI	1.56-.420
47	Cummins....*NHS-600	Own	T,B,Tr,M,R,I	DI	6-5½x6	W	4	743	‡275-2100	240-2100	175-1800	13.50	....	101	16.3	710-1600	3520	4350	VI	1.56-.420
48	Fairbanks-Morse (4) 36	Own	M,R,I	TC	6-4½x6	W	4	510	.....	75-1200	60-1200	16.80	800	78	.....	335-1050	.....	.....	VI	.....
49	Fairbanks-Morse (5) 36	Own	M,R,I	TC	6-5½x7½	W	4	1068	.....	150-1200	120-1200	14.70	800	74	.....	660-1050	.....	.....	VI	.....
50	General Motors...2-71	Own	T,B,Tr,I	DI	2-4¼x5	D	2	142	.....	67-2000*	48-1800*	16.00	1000	78	16.0	200-1300	770	.....	VI	No Valves
51	General Motors...3-71	Own	T,B,Tr,I	DI	3-4¼x5	D	2	213	.....	100-2000*	72-1800*	16.00	1000	78	16.0	300-1300	1175	.....	VI	No Valves
52	General Motors...4-71	Own	T,B,Tr,I	DI	4-4¼x5	D	2	284	.....	133-2000*	96-1800*	16.00	1000	78	14.0	400-1300	1300	.....	VI	No Valves
53	General Motors...6-71	Own	T,B,Tr,I	DI	6-4¼x5	D	2	425	.....	200-2000*	145-1800*	16.00	1000	78	11.0	600-1300	1655	.....	VI	No Valves
54	General Motors Twin 6	Own	I	DI	12-4¼x5	D	2	851	.....	400-2000*	290-1800*	16.00	1000	78	18.0°	2100-740Sh	5200°	.....	VI	No Valves
55	General Motors Quad 6	Own	I	DI	24-4¼x5	D	2	1702	.....	800-2000*	580-1800*	16.00	1000	78	21.0°	4200-740Sh	12180	°	VI	No Valves
56	General Motors...2-71	Own	M	DI	2-4¼x5	D	2	142	.....	56-2000	.....	16.00	980	.....	.....	.....	.....	Vwg	VI	No Valves
57	General Motors...3-71	Own	M	DI	3-4¼x5	D	2	213	.....	85-2000	.....	16.00	980	.....	.....	.....	.....	Vwg	VI	No Valves
58	General Motors...4-71	Own	M	DI	4-4¼x5	D	2	284	.....	113-2000	.....	16.00	980	.....	.....	.....	.....	Vwg	VI	No Valves
59	General Motors...6-71	Own	M	DI	6-4¼x5	D	2	425	.....	170-2000	.....	16.00	980	.....	.....	.....	.....	Vwg	VI	No Valves
60	General Motors Twin 6	Own	M	DI	12-4¼x5	D	2	851	.....	340-2000	.....	16.00	980	.....	.....	.....	.....	Vwg	VI	No Valves
61	General Motors Quad 6	Own	M	DI	24-4¼x5	D	2	1702	.....	680-2000	.....	16.00	980	.....	.....	.....	.....	Vwg	VI	No Valves
62	General Motors...3-71	Own	M	DI	3-4¼x5	D	2	213	.....	100-2000	.....	16.00	1000	.....	.....	.....	.....	Vwg	VI	No Valves
63	General Motors...4-71	Own	M	DI	4-4¼x5	D	2	284	.....	133-2000	.....	16.00	1000	.....	.....	.....	.....	Vwg	VI	No Valves
64	General Motors...6-71	Own	M	DI	6-4¼x5	D	2	425	.....	200-2000	.....	16.00	1000	.....	.....	.....	.....	Vwg	VI	No Valves
65	General Motors Twin 6	Own	M	DI	12-4¼x5	D	2	851	.....	400-2000	.....	16.00	1000	.....	.....	.....	.....	Vwg	VI	No Valves
66	General Motors Quad 6	Own	M	DI	24-4¼x5	D	2	1702	.....	800-2000	.....	16.00	1000	.....	.....	.....	.....	Vwg	VI	No Valves
67	Hercules.....DIXC	Own	Tr,M,I	TC	2-4x4½	D	4	113	27-1800	23-1800	23-1800	15.50	750	92	23.9	81-1400	550	550	VI	1.62-.375
68	Hercules.....DIXD	Own	Tr,M,I	TC	2-4¼x4½	D	4	127	27.6-1600	23.5-1600	23.5-1600	15.50	750	92	25.9	91-1300	550	550	VI	1.62-.375
69	Hercules.....DIX4B	Own	T,B,Tr,M,R,I	TC	4-3¼x4	D	4	133	46-3000	39-3000	36-2400	15.00	825	89	15.2	98-1600	550	.....	VI	1.37-.350
70	Hercules.....DIX4D	Own	T,B,Tr,M,R,I	TC	4-3⅝x4	D	4	165	57-3000	48-3000	45-2400	15.00	825	90	12.2	122-1600	550	.....	VI	1.56-.350
71	Hercules.....DOOB	Own	T,Tr,M,I,B	TC	4-3¾x4½	D	4	199	62-2600	53-2600	41-1800	15.00	750	91	18.3	142-1400	750	.....	VI	1.62-.375
72	Hercules.....DOOC	Own	T,Tr,M,I,B	TC	4-4x4½	D	4	226	70-2600	60-2600	47-1800	15.00	750	91	15.9#	162-1400	750	.....	VI	1.62-.375
73	Hercules.....DOOD	Own	T,Tr,M,I,B	TC	4-4¼x4½	D	4	255	79-2600	66-2600	53-1800	15.00	750	91	14.2#	182-1400	750	.....	VI	1.62-.375
74	Hercules.....DJXB	Own	T,B,Tr,M,R,I	TC	6-3½x4½	D	4	260	77-2600	66-2600	51-1800	15.00	750	87	18.6	179-1300	950	.. ..	VI	1.62-.375
75	Hercules.....DJXC	Own	T,B,Tr,M,R,I	TC	6-3¾x4½	D	4	298	83-2600	71-2600	59-1800	15.00	750	87	16.1#	208-1300	950	.....	VI	1.62-.375
76	Hercules.....DJXH	Own	T,B,Tr,M,I	TC	6-3⅝x4½	D	4	298	99-2600	84-2600	66-1800	15.00	750	97	14.7	320-1300	980	.....	VI	1.75-.375
77	Hercules.....DWXC	Own	T,B,Tr,M,R,I	TC	6-4x4¾	D	4	358	118-2600	100-2600	81-1800	15.00	750	100	16.7	284-1600	1350	.....	VI	1.68-.395
78	Hercules.....DWXD	Own	T,B,Tr,M,R,I	TC	6-4¼x4¾	D	4	404	135-2600	115-2600	92-1800	15.00	750	100	14.7#	320-1600	1350	.....	VI	1.68-.395

(For abbreviations see pages 158 and 159)

OTHER HEAVY OIL ENGINES



VALVES		PISTONS				PISTON PIN		CONNECTING RODS			MAIN BEARINGS		INJECTION SYSTEM									STARTING METHOD		OVERALL DIMENSIONS			
Exhaust Port Diameter and Lift (In.)		Material	Length (In.)	Weight with Rings and Pin (Lb.)	No. of Compression Rings	No. of Oil Rings	Diameter and Length (In.)	Locked In—	Material (S.A.E. No.)	Center to Center Length (In.)	Weight with Cap and Bushing (Lb.)	Number	Diameter (In.)	Make of Pump	Make of Valve	Valve Type—Open or Closed	Orifices	Pressure—Nozzle Opening (Lb. per Sq. In.)	Air Cleaner—Make	Fuel Filter—Make	Lubricant Filter—Make	Minimum Recommended Cetane Number of Fuel	Make	Type	Length—Fan to Flywheel (In.)	Width (In.)	Height—To Top of Air Cleaner (In.)	Line Number
.98– .390	Alu	4.25	1.75	3	2	.937–2.75	F	3140	7.56	2.50	2	2.25	AB	AB	C	Pi	1800	Opt	AB	Opt	45	AL	E-H	20 1/16	20 1/2	36 11/16	1
.98– .390	Alu	4.25	1.75	3	2	.937–2.75	F	3140	7.56	2.50	4	2.25	AB	AB	C	Pi	1800	Opt	AB	Opt	45	AL	E-H	31 1/2	23 5/8	34 1/16	2
2.00– .640	Cl	9.75	27.2	4	2	2.50–5.25	F	1040	17.75	8.2	5	4.62	AB	AB	C	Pi	2800	Vor	Pur	Pur	40	.....	A	93 1/16 (a)	33 1/16	57 1/2	3
2.00– .640	Cl	9.75	27.2	4	2	2.50–5.25	F	1040	17.75	8.2	7	4.62	AB	AB	C	Pi	2800	Vor	Pur	Pur	40	.....	A	114 1/8 (a)	33 1/16	57 1/2	4
1.12– .429	Alu	4.12	.....	4	1	1.00–2.84	F	1045	7.37	.....	3	2.50	AB	AB	C	Pi	2000	Uni	Com	WGB	46	AL	Ele	30 3/16	19 3/4	26 7/8	5
1.12– .429	Alu	4.12	.....	4	1	1.00–2.84	F	1045	7.37	.....	3	2.50	AB	AB	C	Pi	2000	Uni	Com	WGB	46	AL	Ele	38 1/16	19 3/4	26 7/8	6
1.18– .486	Alu	4.93	3.00	3	2	1.25–2.92	F	1035	9.50	3.41	7	3.00	AB	AB	C	Pi	2000	Uni	B-P	DeL	46	DR	Ele	42 1/16	27	35 1/16 (12)	7
1.18– .486	Alu	4.93	3.00	3	2	1.25–2.92	F	1035	9.50	3.41	7	3.00	AB	AB	C	Pi	2000	.....	B-P	DeL	46	DR	Ele	54 1/16 (11)	27 1/16	34 1/16 (12)	8
1.37– .476	Alu	5.25	4.48	3	2	1.50–3.56	F	6140	11.00	4.87	7	3.00	AB	AB	C	Pi	2000	Uni	B-P	DeL	46	DR	Ele	48 1/2	25 3/4	37 1/16 (12)	9
1.37– .476	Alu	5.25	4.48	3	2	1.50–3.56	F	6140	11.00	4.87	7	3.00	AB	AB	C	Pi	2000	.....	B-P	DeL	46	DR	Ele	61 1/16 (11)	29 1/2	36 1/8 (12)	10
2.16– .687	Alu	9.31	19.19	3	2	2.75–5.53	F	1035	17.75	28.51	7	4.50	AB	AB	C	Pi	1800	Uni	P-S	DeL	46	D-N	E-G	86 1/16	38 1/16	62 1/16 (12)	11
2.16– .687	Alu	9.31	19.19	3	2	2.75–5.53	F	1035	17.75	28.51	7	4.50	AB	AB	C	Pi	1800	.....	P-S	DeL	46	D-N	E-G	114 1/8 (11)	37 1/16	62 1/16 (12)	12
2.16– .687	Alu	9.31	19.19	3	2	2.75–5.53	F	1035	17.75	28.51	7	4.50	AB	AB	C	Pi	1800	Uni	P-S	DeL	46	D-N	E-G	95 3/8	48	62 1/16 (12)	13
1.87– .540	Alu	6.75	6.70	3	2	1.75–4.50	F	1040	12.50	10.62	7	3.75	AB	AB	C	Pi	2000	Uni	Com	Com	46	L-D	E-G	58 1/8	29 1/16	48 1/4	14
1.87– .540	Alu	6.75	6.70	3	2	1.75–4.50	F	1040	12.50	10.62	7	3.75	AB	AB	C	Pi	2000	.....	Com	Com	46	L-D	E-G	83 1/16	30 1/4	46 1/16	15
1.87– .540	Alu	6.75	6.70	3	2	1.75–4.50	F	1040	12.50	10.62	7	3.75	AB	AB	C	Pi	2000	.....	Com	DeL	46	L-D	E-G	58 1/8	32 1/2	48 1/4	16
1.87– .540	Alu	6.75	6.70	3	2	1.75–4.50	F	1040	12.50	10.62	7	3.75	AB	AB	C	Pi	2000	.....	Com	DeL	46	L-D	E-G	89 1/8	36 1/8	45 1/2	17
1.87– .540	Alu	6.75	6.70	3	2	1.75–4.50	F	1040	12.50	10.62	9	3.75	AB	AB	C	Pi	2000	.....	Com	DeL	46	L-D	E-G	73	30 1/2	48 1/4	18
1.87– .540	Alu	6.75	6.70	3	2	1.75–4.50	F	1040	12.50	10.62	9	3.75	AB	AB	C	Pi	2000	.....	.....	.....	46	L-D	E-G	101 1/4	36 1/8	46 1/16	19
1.87– .540	Alu	6.75	6.70	3	2	1.75–4.50	F	1040	12.50	10.62	9	3.75	AB	AB	C	Pi	2000	.....	.....	.....	46	L-D	E-G	83 1/16	32 1/2	53 5/8	20
1.87– .540	AA	6.75	6.70	3	2	1.75–4.50	F	1040	12.50	10.62	5	3.75	AB	AB	C	Pi	2000	Don	Com	DeL	46	DR	Ele	44 3/8	30 1/16	48 1/4	21
2.16– .687	AA	9.31	19.19	3	2	2.75–5.53	F	1035	17.75	28.51	7	4.50	AB	AB	C	Pi	1800	.....	Pur	DeL	46	LB	E-G	.....	.....	.....	22
2.16– .687	AA	9.31	19.19	3	2	2.75–5.53	F	1035	17.75	28.51	7	4.50	AB	AB	C	Pi	1800	.....	Pur	DeL	46	LB	E-G	.....	.....	.....	23
																											24
2 1/16– .468	Alu	9.18	.....	4	2	2.37–4.75	F	1045	16.00	.....	5	4.00	Own	Own	C	Si	1750	Don	Own	Pur	35	Own	G	88	49 1/4	66 1/2	25
2 1/16– .468	Alu	9.18	.....	3	1	2.37–4.75	F	1045	15.00	.....	7	3.75	Own	Own	C	Si	1750	Don	Own	Pur	35	Own	G	87 1/2	42 3/4	60	26
2 1/16– .468	Alu	9.18	.....	3	1	2.37–4.75	F	1045	15.00	.....	5	3.75	Own	Own	C	Si	1750	Don	Own	Pur	35	Own	G	70 1/16	40	58 1/16	27
1 1/16– .375	Alu	6.12	.....	3	2	1.75–3.50	F	1045	10.25	.....	7	3.00	Own	Own	C	Si	1500	Don	Own	Pur	35	Own	G	67 1/16	29 7/8	48 1/8	28
1 1/16– .375	Alu	6.18	.....	3	2	1.75–3.50	F	1045	10.25	.....	5	3.00	Own	Own	C	Si	1500	Don	Own	Pur	35	Own	G	54	29 1/8	45	29
1 1/32– .331	Alu	5.50	.....	3	2	1.56–3.00	F	1045	10.25	.....	5	2.75	Own	Own	C	Si	1500	Don	Own	Pur	35	Own	G	51	26 3/4	43 3/4	30
1.75– .422	Nl	6.12	7.87	4	1	1.75–3.50	F	1045	11.50	6.43	4	3.00	AB	AB	C	Pi	2200	Vor	CB	Nug	45	AL	Ele	46	32	53	31
1.75– .422	Nl	6.12	7.87	4	1	1.75–3.50	F	1045	11.50	6.43	6	3.00	AB	AB	C	Pi	2200	Ver	CB	Nug	45	AL	Ele	66	32	53	32
1.06– .375	AA	3.75	.....	3	1	1.12–....	F	S/B-CLM	7.00	.....	3	2.37	A-E	A-E	...	Si	1600	Op	.....	.....	.....	.....	Ele	31 5/8	19 7/8	30 1/4	33
1.25– .328	AA	4.31	.....	3	1	1.25–....	...	S/B-BAB	9.50	.....	3	2.87	A-E	A-E	...	Si	1600	.....	.....	.....	.....	.....	Ele	33 5/8	21 1/16	35	34
1.25– .328	AA	4.31	.....	3	1	1.25–....	F	S/B-BAB	9.50	.....	3	2.87	A-E	A-E	...	Si	1600	.....	.....	.....	.....	.....	Ele	33 5/8	21 1/16	35	35
1.50– .437	AA	4.68	.....	3	1	1.43–....	F	S/B-BAB	8.37	.....	7	2.87	A-E	A-E	...	Si	1600	Op	.....	.....	.....	.....	Ele	47 1/16	27 1/16	37 1/16	36
1.65– .546	AA	5.93	.....	3	1	1.50–....	F	S/B-BAB	10.50	.....	7	3.25	A-E	A-E	...	Si	1600	Op	.....	.....	.....	.....	Ele	51 1/16	31 5/8	44 1/16	37
1.37– .437	AA	4.75	.....	3	1	1.25–....	F	S/B-BAB	8.37	.....	7	2.62	A-E	A-E	...	...	1600	Op	.....	.....	.....	.....	Ele	43 1/16	22 3/8	35 5/8	38
1.37– .437	AA	4.75	.....	3	1	1.10–....	F	LB-CNM	8.37	.....	7	2.62	A-E	A-E	...	Si	1600	Op	.....	.....	.....	.....	Ele	.....	.....	.....	39
1.50– .437	AA	4.68	.....	3	1	1.25–....	F	LB-CNM	8.37	.....	7	2.87	A-E	A-E	...	Si	1600	Op	.....	.....	.....	.....	Ele	.....	.....	.....	40
1.65– .546	AA	5.93	.....	3	...	1.50–....	F	LB-CNM	10.50	.....	7	3.25	A-E	A-E	...	Si	1600	Op	.....	.....	.....	.....	Ele	.....	.....	.....	41
1.37– .406	Cl	5.04	5.70	3	2	1.49–3.37	F	E-4135	9.50	6.6	7	3.87	Own	Own	...	Mu	....	Don	Cun	Nug	50	L-D	Ele	46 3/8 (2)	28 3/8	39 1/16 (3)	42
1.75– .500	Cl	6.25	10.56	3	2	1.99–4.09	F	E-4135	12.00	10.2	5	4.50	Own	Own	...	Mu	....	Don	Cun	Nug	50	L-D	Ele	43 1/16 (2)	29 5/8	47 1/16 (3)	43
1.75– .500	Cl	6.25	10.56	3	2	1.99–4.09	F	E-4135	12.00	10.2	7	4.50	Own	Own	...	Mu	....	Don	Cun	Nug	50	L-D	Ele	57 1/16 (2)	29 5/8	47 1/16 (3)	44
1.75– .500	Alu	6.25	7.21	3	2	1.99–4.09	F	E-4135	12.00	10.2	7	4.50	Own	Own	...	Mu	....	Don	Cun	Nug	50	L-D	Ele	60 1/16 (2)	30 1/16	47 1/16 (3)	45
1.56– .420	Alu	6.25	8.75	3	1	1.99–4.34	F	.....	12.00	.....	7	4.50	Own	Own	...	Mu	....	Don	Com	.....	45	L-D	Ele	61 1/32 (2)	28 1/8	49 1/16	46
1.56– .420	Alu	6.25	8.65	3	1	1.99–4.34	F	.....	12.00	.....	7	4.50	Own	Own	...	Mu	....	Don	Com	.....	45	L-D	Ele	60 1/32 (2)	32 5/8	48 1/16	47
.....	Cl(a)	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	3.00	AB	AB	C	Pi	1700	Op	.....	.....	50	.....	(6)(k)	65	25 3/4	32 7/8 ††	48
.....	Cl	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	5.50	AB	AB	C	Pi	1500	Op	.....	.....	50	.....	(6)	79 3/8	29 5/8	39 3/4 ††	49
125– .385	AT	6.00	7.68	4	2	1.50–3.62	F	1340	10.12	6.16	3	3.50	Own	Own	C	Mu	....	AC	AC	AC	45	DR	Ele	31	27 5/8	38 1/32 •	50
125– .385	AT	6.00	7.68	4	2	1.50–3.62	F	1340	10.12	6.16	4	3.50	Own	Own	C	Mu	....	AC	AC	AC	45	DR	Ele	37 1/16	29 1/16	40 1/16 ••	51
125– .385	AT	6.00	7.68	4	2	1.50–3.62	F	1340	10.12	6.16	5	3.50	Own	Own	C	Mu	....	AC	AC	AC	45	DR	Ele	42 5/8	29 1/16	41 5/8 ••	52
125– .385	AT	6.00	7.68	4	2	1.50–3.62	F	1340	10.12	6.16	7	3.50	Own	Own	C	Mu	....	AC	AC	AC	45	DR	Ele	54 1/16	29 1/16	41 1/4 ••	53
125– .385	AT	6.00	7.68	4	2	1.50–3.62	F	1340	10.12	6.16	.....	.....	Own	Own	C	Mu	....	AC	AC	AC	45	DR	Ele	85 5/8 (15)	85 5/8 (15)	57 1/16 (15)	54
125– .385	AT	6.00	7.68	4	2	1.50–3.62	F	1340	10.12	6.16	.....	.....	Own	Own	C	Mu	....	AC	AC	AC	45	DR	Ele	175 (15)	175 (15)	68 5/8 (15)	55
125– .385	AT	6.00	7.68	4	2	1.50–3.62	F	1340	10.12	6.16	3	3.50	Own	Own	C	Mu	....	as	AC	AC	45	DR	Ele	Vwg	32 5/8	Vwg	56
125– .385	AT	6.00	7.68	4	2	1.50–3.62	F	1340	10.12	6.16	4	3.50	Own	Own	C	Mu	....	as	AC	AC	45	DR	Ele	Vwg	32 5/8	Vwg	57
125– .385	AT	6.00	7.68	4	2	1.50–3.62	F	1340	10.12	6.16	5	3.50	Own	Own	C	Mu	....	as	AC	AC	45	DR	Ele	Vwg	31 1/16	Vwg	58
125– .385	AT	6.00	7.68	4	2	1.50–3.62	F	1340	10.12	6.16	7	3.50	Own	Own	C	Mu	....	as	AC	AC	45	DR	Ele	Vwg	31 1/16	Vwg	59
125– .385	AT	6.00	7.68	4	2	1.50–3.62	F	1340	10.12	6.16	.....	.....	Own	Own	C	Mu	....	as	AC	AC	45	DR	Ele	70 1/16	55 1/4	54 1/16 ‡‡	60
125– .385	AT	6.00	7.68	4	2	1.50–3.62	F	1340	10.12	6.16	.....	.....	Own	Own	C	Mu	....	as	AC	AC	45	DR	Ele	127 3/8	55 1/4	54 1/16 ‡‡	61
125– .385	AT	6.00	7.68	4	2	1.50–3.62	F	1340	10.12	6.16	4	3.50	Own	Own	C	Mu	....	as	AC	AC	45	DR	Ele	Vwg	32 5/8	Vwg	62
125– .385	AT	6.00	7.68	4	2	1.50–3.62	F	1340	10.12	6.16	5	3.50	Own	Own	C	Mu	....	as	AC	AC	45	DR	Ele	Vwg	32 5/8	Vwg	63
125– .385	AT	6.00	7.68	4	2	1.50–3.62	F	1340	10.12	6.16	7	3.50	Own	Own	C	Mu	....	as	AC	AC	45	DR	Ele	Vwg	32 5/8	Vwg	64
125– .385	AT	6.00	7.68	4	2	1.50–3.62	F	1340	10.12	6.16	.....	.....	Own	Own	C	Mu	....	as	AC	AS	45	DR	Ele	Vwg	55 1/4	54 1/16 ‡‡	65
125– .385	AT	6.00	7.68	4	2	1.50–3.62	F	1340	10.12	6.16	.....	.....	Own	Own	C	Mu	....	as	AC	AC	45	DR	Ele	Vwg	55 1/4	54 1/16 ‡‡	66
1.12– .375	Alu	4.84	4.00	4	2	1.18–3.45	F	CNM	8.00	5.31	2	3.00	AB	AB	C	Pi	1450	.....	.....	.....	45	DR	EHA	27 11/16 (2)	16 5/8	36 1/4	67
1.12– .375	Alu	4.84	4.47	4	2	1.18–3.70	F	CNM	8.00	5.31	2	3.00	AB	AB	C	Pi	1450	.....	.....	.....	45	DR	EHA	27 11/16 (2)	16 5/8	36 1/4	68
1.12– .350	Alu	4.03	3.20	3	2	1.12–2.62	F	CNM	7.75	4.20	3	2.75	AB	AB	C	Pi	1650	.....	Pur	Pur	45	LDA	A-E1	20 1/16	21	32 1/2	69
1.12– .350	....	4.03	3.20	3	2	1.12–2.87	F	CNM	7.75	4.20	3	2.75	AB	AB	C	Pi	1650	.....	Pur	Pur	45	LDA	A-E1	20 1/16	21	32 1/2	70
1.12– .375	Alu	4.84	3.56	4	2	1.18–3.20	F	CNM	8.00	5.31	5	3.00	AB	AB	C	Pi	1650	.....	.....	.....	45	LDA	EGA	32 1/16 (2)	22 1/16	36	71
1.12– .375	Alu	4.84	4.00	4	2	1.18–3.45	F	CNM	8.00	5.31	5	3.00	AB	AB	C	Pi	1650	.....	.....	.....	45	LDA	EGA	32 1/16 (2)	22 1/16	36	72
1.12– .375	Alu	4.84	4.47	4	2	1.18–3.70	F	CNM	8.00	5.31	5	3.00	AB	AB	C	Pi	1650	.....	.....	.....	45	LDA	EGA	32 1/16 (2)	22 1/16	36	73
1.12– .375	Alu	4.84	3.12	4	2	1.18–2.95	F	CNM	8.00	5.31	7	3.00	AB	AB	C	Pi	1650	.....	.....	.....	45	LDA	EGA	39 (2)	22 1/16	32 1/4	74
1.12– .375	Alu	4.84	3.56	4	2	1.18–3.20	F	CNM	8.00	5.31	7	3.00	AB	AB	C	Pi	1650	.....	.....	.....	45	LDA	EGA	39 (2)	22 1/16	32 1/4	75
1.31– .375	Alu	4.84	3.58	3	2	1.18–3.20	F	CNM	8.00	5.31	7	3.00	AB	AB	C	Pi	1650	.....	.....	.....	45	LDA	EGA	39 (2)	22 1/16	33 1/8	76
1.25– .395	Alu	4.84	4.00	4	2	1.18–3.45	F	CNM	8.50	7.31	7	3.50	AB	AB	C	Pi	1650	.....	.....	.....	45	LDA	EGA	46 11/16 (2)	25 3/4	36 1/2	77
1.25– .395	Alu	4.84	4.47	4	2	1.18–3.70	F	CNM	8.50	7.00	7	3.50	AB	AB	C	Pi	1650	.....	.....	.....	45	LDA	EGA	46 11/16 (2)	25 3/4	36 1/2	78

(For abbreviations see pages 158 and 159)

Automotive Diesel and

Line Number	ENGINE MAKE AND MODEL	Built Under License from	GENERAL															VALVES	
			Designed for	Type	Number of Cylinders Bore and Stroke (In.)	Cylinder Liners—Type	Cycle	Piston Displacement (Cu. In.)	With Bare Engine: Maximum Brake Hp. at Specified R.P.M.	With Standard Accessories: Max. Intermittent Hp. at Specified R.P.M.	With Standard Accessories: Continuous Sustained Hp. at Specified R.P.M.	Compression Ratio - to 1	Max. Combustion Pressure (Lb. per Sq. in.)	B.M.E.P. at Continuous Hp. (Lb. per Sq. In.)	Weight per Continuous Hp. (Lb.)	Max. Torque in Lb. Ft. at Specified R.P.M.	Shipping Weight (Lb.): Automotive or Industrial	Shipping Weight (Lb.): Marine	Arrangement	Intake Port Diameter and Lift (in.)
1	Hercules.....DRXB	Own	T,B,Tr,M,R,I	TC	6-4⅜x5¼	D	4	474	132-2200	112-2200	89-1600	15.00	750	94	18.0♣	340-1200	1600	.....	VI	2.00-.395
2	Hercules.....DRXC	Own	T,B,Tr,M,R,I	TC	6-4⅜x5¼	D	4	529	147-2200	125-2200	100-1600	15.00	750	94	16.0♣	395-1200	1600	.....	VI	2.00-.395
3	Hercules.....DFXB	Own	T,B,M,Tr,I	TC	6-5x6	D	4	707	190-2100	162-2100	138-1600	14.80	750	95	18.4	530-1350	2500	.....	VI	2.37-.500
4	Hercules.....DFXC	Own	T,B,M,Tr,I	TC	6-5¼x6	D	4	779	204-2100	173-2100	149-1600	14.80	750	95	16.8	585-1350	2500	.....	VI	2.37-.500
5	Hercules.....DFXD	Own	T,B,M,Tr,I	TC	6-5½x6	D	4	855	217-2100	184-2100	162-1600	14.80	750	94	15.4♣	645-1200	2500	.....	VI	2.37-.500
6	Hercules.....DFXE	Own	T,B,Tr,M,R,I	TC	6-5½x6	D	4	895	228-2100	194-2100	170-1600	14.80	750	94	14.7♣	680-1200	2500	.....	VI	2.37-.500
7	Hercules.....DFXH	Own	T,B,Tr,M,R,I	TC	6-5¾x6	D	4	935	260-2100	221-2100	187-1600	14.80	750	99	13.8♣	750-1200	2575	.....	VI	2.60-.500
8	Hercules.....DNX-U8	Own	T,B,Tr,M,I	TC	8-6¼x6	D	4	1468	400-2100	340-2100	278-1600	14.80	750	94	15.1	1100-1200	4200	.....	VI	2.87-.500
9	Hercules....DNX-U85	Own	M,I	TC	8-6¼x6	D	4	1468	500-2100	425-2100	345-1600	14.80	750	115	13.9	1320-1400	4800	.....	VI	2.87-.500
10	Hill.....2R	Own	M,I	PC	2-3½x5½	D	4	106	19-1500	17.3-1500	16.6-1500	16.00	....	85	64	69-1200	1225	1300	VI	1.37-.372
11	Hill.....4R	Own	M,I	PC	4-3½x5½	D	4	212	41-1500	36.3-1500	33-1500	16.00	....	85	44	142-1200	.....	1750	VI	1.37-.372
12	Hill.....6R	Own	M,I	PC	6-3½x5½	D	4	317	63-1500	55-1500	50-1500	16.00	....	85	37.5	225-1200	.....	2300	VI	1.37-.372
13	International.....UD6	Own	Tr,I	PC	4-3⅞x5¼	D	4	248	45-1500	39-1500	31.2-1500	14.20	....	66	38.9♣	162- 800	1215	.....	VI	1.50-.500
14	International.....UD9	Own	Tr,I	PC	4-4.4x5½	D	4	334	63-1500	53-1500	42.4-1500	14.40	....	67	35.0♣	211- 800	1485	.....	VI	1.66-.500
15	International....UD14A	Own	Tr,I	PC	4-4¾x6½	W	4	461	79-1400	76-1400	60.8-1400	15.5	....	70	33.0♣	325- 900	1775	.....	VI	1.78-.503
16	International.....UD16	Own	Tr,I	PC	6-4.4x5.5	D	4	502	.....	100-1800	80-1800	16.60	....	70	27.3♣	330-1000	2190	.....	VI	1.65-.532
17	International....UD18A	Own	Tr,I	PC	6-4¾x6½	W	4	691	.131-1600	125-1600	100-1600	15.5	....	65	34.9♣	470- 900	2860	.....	VI	1.78-.503
18	Kermath.....DIX	Hercules	M	TC	2-4¼x4½	D	4	113	.....	27-1800	20-1800	15.50	750	78	43.5	81-1400	.....	870	VI	1.62-.375
19	Kermath.....DOO	Hercules	M	TC	4-4x4½	D	4	226	.....	65-2800	49-2800	14.50	500	66	24.5	162-1400	.....	1200	VI	1.62-.375
20	Kermath.....DJX	Hercules	M	TC	6-3⅜x4½	D	4	298	.....	84-2800	63-2800	14.50	500	64	21.5	208-1500	.....	1355	VI	1.62-.375
21	Kermath.....DRX	Hercules	M	TC	6-4⅛x5¼	D	4	474	.....	113-1800	85-1800	14.50	475	79	24.7	350-1300	.....	2100	VI	2.00-.395
22	Lister (1).....CD	Lister	M,I	PC	1-4½x4⅜	D	4	69.5	8.75-1200	7.2-1200	6.2-1200	△	800	80	198.4	37-1000	.....	1230	VI	1.43-.380
23	Lister (1).....CE	Lister	M,I	PC	2-4½x4⅜	D	...	139	17.5-1200	14.4-1200	12.4-1200	△	800	80	109.2	73-1000	.....	1355	VI	1.43-.380
24	Murphy.....ME-4	Own	M,I	DI	4-5¾x6½	W	4	675	.....	105-1200	90-1200	17.00	....	88	47.7	472- 900	4300	6350	VI	1.62d-.500
25	Murphy.....ME-6	Own	M,I	DI	6-5¾x6½	W	4	1013	.....	160-1200	135-1200	17.00	....	88	38.5	732- 850	5200	7940	VI	1.62d-.500
26	Murphy.....*ME-650	Own	M,I	DI	6-5¾x6½	W	4	1013	.....	200-1200	165-1200	14.00	....	107	35.7	960- 775	5900	8190	VI	1.62d-.500
27	Murphy.....ME-66	Own	M,I	DI	6-6x6½	W	4	1103	.....	180-1200	150-1200	17.00	....	90	34.5	8.30- 800	5200	7940	VI	1.62d-.500
28	Murphy.....ME-46	Own	M,I	DI	4-6x6½	W	4	735	.....	115-1200	100-1200	17.00	....	90	43.0	5.53- 800	4300	6350	VI	1.62d-.500
29	Red Wing.....DO	Herc	M	TC	4-4¼x4½	D	...	255	79-2600	75-2400	56-1600	15.00	750	91	.....	182-1400	.....	.....	VI	1.62-.375
30	Red Wing....42-54HP	Wau-Hes	M	DI	4-4x5	W	4	251	55-2200	54-2000	43-1500	5.90	500	65	25.6	155-1000	.....	1100	VI	1.62-.445
31	Red Wing....55-60HP	Wau-Hes	M	DI	4-4½x5¼	W	4	353	62-1600	59-1600	55-1400	5.60	500	65	21.8	230- 800	.....	1200	VI	1.75-.450
32	Red Wing....65-75HP	Wau-Hes	M	DI	6-3¾x4¼	N	4	282	78-2800	75-2800	59-1800	6.40	500	69	22.0	174-1400	.....	1300	VI	1.62-.375
33	Red Wing..100-125HP	Wau-Hes	M	DI	6-4½x5½	W	4	525	128-2100	125-2100	106-1500	5.80	500	67	17.0	383-1000	.....	1800	VI	1.87-.530
34	Red Wing..160-180HP	Wau-Hes	M	DI	6-6½x7	W	4	1395	174-1125	170-1125	165-1050	5.40	500	74	33.9	900- 500	.....	5600	VI	2.50-.710
35	Red Wing..180-200HP	Wau-Hes	M	DI	6-7x7	W	4	1616	200-1125	196-1125	188-1050	5.50	500	74	30.8	1030- 500	.....	5800	VI	2.50-.710
36	Scripps 7000A,1A,2A,3A	Hercules	M	TC	4-4¼x4½	D	4	255	79-2600	68-2600	52-1800	14.50	750	90	23.1	185-1400	.....	1200	VI	1.62-.378
37	Scripps 8500A,1A,2A,3A	Hercules	M	TC	6-4x4½	D	4	339	103-2600	88-2600	68-1800	14.50	750	88	21.1	238-1500	.....	1435	VI	1.62-.378
38	Sterling.....VD6	.....	M,R,I	....	6-8x9	W	4	2714	.....	325-1200	270-1000	14.00	1000	80	33.9	1420-....	9160	8850	VI	2.37-.525
39	Sterling.....VD6S	.....	M,R,I	....	6-8x9	W	4	2714	.....	495-1200	410-1000	14.00	1000	120	24.4	2155-....	10000	9550	VI	2.37-.525
40	Sterling.....VD8	.....	M,R,I	....	8-8x9	W	4	3619	.....	440-1200	370-1000	14.00	1000	80	28.9	1945-....	10700	10250	VI	2.37-.525
41	Sterling.....VD8S	.....	M,R,I	....	8-8x9	W	4	3619	.....	660-1200	550-1000	14.00	1000	120	21.6	2890-....	11900	11300	VI	2.37-.525
42	Sterling....Viking AB4	.....	M,I	TC	4-4½x5¾	W	4	366	.....	62-1500	48-1400	11.80	675	75	50.0	268-1200	2900	2600	VI	1.81-.526
43	Sterling....Viking AB6	.....	M,I	TC	6-4½x5¾	W	4	549	.....	110-1800	72-1400	11.80	675	75	43.8	400-1200	3750	3200	VI	1.81-.526
44	Sterling....Viking DB4	.....	M,I	TC	4-5½x7	W	4	665	.....	90-1200	76-1200	11.80	750	75	50.7	475-1200	4550	4400	VI	2.19-.649
45	Sterling....Viking DB6	.....	M,I	TC	6-5½x7	W	4	998	.....	170-1500	114-1200	11.80	750	75	45.6	737-1000	5950	5350	VI	2.19-.649
46	Sterling....Viking DB8	.....	M,I	TC	8-5½x7	W	4	1330	.....	230-1500	152-1200	11.80	750	75	45.0	940-1000	7650	6600	VI	2.19-.649
47	Waukesha..(14) 130HS	Hes	Tr	DI	4-3¾x5	W	4	221	48-2200	38-2200	28-1500	6.12	500	67	24.8♣	142-1000	695	.....	VI	1.62-.445
48	Waukesha..(14) 130HL	Hes	Tr	DI	4-4x5	W	4	251	55-2200	44-2200	31-1500	5.90	500	65	22.7♣	155-1000	705	.....	VI	1.62-.445
49	Waukesha..(14) VRZH	Hes	Tr	DI	4-4½x5¼	W	4	353	59-1600	47-1600	41-1400	5.60	500	65	25.6♣	229- 700	1050	.....	VI	1.75-.450
50	Waukesha..(13) 140HS	Hes	I	DI	6-4¼x5½	W	4	468	114-2250	95-2250	67-1500	5.80	500	75	22.5♣	342-1000	1510	.....	VI	1.87-.531
51	Waukesha..(13) 140HK	Hes	I	DI	6-4½x5½	W	4	525	128-2250	109-2250	75-1500	5.80	500	74	21.0♣	383-1000	1550	.....	VI	1.87-.531
52§	Waukesha.....148DK	.....	T,I	TC	6-5¼x6	W	4	779	168-2000	138-2000	102-1400	17.5	750	80	21.0♣	530-1200	2150	.....	VI	2.25-.500
53	Waukesha..(13) 145HK	Hes	I	DI	6-5¼x6	W	4	779	174-2000	148-2000	106-1400	5.60	500	77	17.6♣	550- 900	1865	.....	VI	1.87-.594
54	Waukesha(14) 6WAKH	Hes	I	DI	6-6¼x6½	W	4	1197	202-1800	162-1600	139-1300	5.20	500	71	23.0♣	811- 700	3200	.....	VI	2.37-.656
55	Waukesha....6WAKD	.....	T,I	TC	6-6¼x6½	W	4	1197	225-1600	185-1600	152-1300	16.5	750	83	22.3♣	845- 900	3400	.....	VI	2.37-.656
56	Waukesha..(14) 6NKH	Hes	I	DI	6-7x8½	W	4	1962	226-1050	187-1050	160- 950	5.42	500	68	38.8♣	1350- 650	6200	.....	VI	2.50-.713
57	Waukesha..(14) 6LRH	Hes	I	DI	6-8½x8½	W	4	2894	333-1050	277-1050	225- 900	5.43	500	68	47.8♣	1830- 550	10750	.....	VI	3.25-.750

ABBREVIATIONS

■—Without fan or muffler

♣—Based on automotive or industrial weight, all others on marine

‡—With full equipment but without radiator or fan

*—Supercharged †—Includes piston pin

††—From center line of crankshaft to top of engine

°—Includes structural steel mounting base and reduction gears

•—Includes muffler

△—To Propeller shaft flange

▾—Optional

▲—15 or 19

⊕⊕—To top of valve cover

⏚—Includes reverse and reduction gear

‡‡—Bottom of base to highest point on engine

(1)—Lister-Blackstone, Inc.

(2)—Fan to flywheel housing

(3)—To top of water outlet (highest point)

(4)—Also built in 1, 2, 3 and 4 cylinder models

(5)—Also built in 8 cylinder model

(6)—Air, electric

(10)—Cast iron to 1600 R.P.M., aluminum above 1600 R.P.M.

(11)—Includes radiator

(12)—From bottom of pan to air cleaner mounting flange

(13)—Automotive power ratings

(14)—Industrial power ratings

(15)—Including radiator and gear box

A—Air (a)—Aluminum on 1, 2 and 3 cyl.

AA—Aluminum Alloy

AB—American Bosch AC—Air chamber

AC—AC Spark Plug Co.

AD—American Bosch or Demco

A-E—American Bosch or Ex-Cell-O Corp.

A-EI—Air or Electric

AL—Electric Auto-Lite Co.

Alu—Aluminum AM—Air-Maze Corp.

as—Air Silencer

AT—Arma Steel, tin plated B—Buses

BB—Bendix or Bosch

B-P—Bosch or Purolator

Brg—Briggs Clarifier Co. Bur—Burgess

C—Cars C—Closed

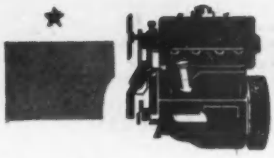
CB—Primary, Cuno; Secondary, Bosch

CI—Cast Iron

Other Heavy Oil Engines—*Concluded*

VALVES		PISTONS				PISTON PINS		CONNECTING RODS			MAIN BEARINGS		INJECTION SYSTEM									STARTING METHOD		OVERALL DIMENSIONS			
Exhaust Port Diameter and Lift (In.	Material	Length (In.)	Weight with Rings and Pin (Lb.)	No. of Compression Rings	No. of Oil Rings	Diameter and Length (In.)	Locked In—	Material (S.A.E. No.)	Center to Center Length (In.)	Weight with Cap and Bushing (Lb.)	Number	Diameter (In.)	Make of Pump	Make of Valve	Valve Type—Open or Closed	Orifices	Pressure—Nozzle Opening (Lb. per Sq. In.)	Air Cleaner—Make	Fuel Filter—Make	Lubricant Filter—Make	Minimum Recommended Cetane Number of Fuel	Make	Type	Length—Fan to Flywheel (In.)	Width (In.)	Height—To Top of Air Cleaner (In.)	Line Number
1.37- .395	Alu	6.84	7.09	4	2	1.62-3.75	F	CNM	9.37	8.59	7	3.50	AB	AB	C	Pi	1650	.....	.....	.....	45	LDA	EGA	46 1/16 (2)	27	38 3/8	1
1.37- .395	Alu	6.84	7.93	4	2	1.62-3.93	F	CNM	9.37	8.59	7	3.50	AB	AB	C	Pi	1650	.....	.....	.....	45	LDA	EGA	46 1/16 (2)	27	38 3/8	2
1.62- .500	Alu	7.53	9.94	4	2	2.00-4.18	F	CNM	12.00	13.75	7	4.50	AB	AB	C	Pi	2000	.....	.....	.....	45	LDA	EGA	62 11/32 (2)	30 5/8	48 1/16	3
1.62- .500	Alu	7.53	11.69	4	2	2.00-4.42	F	CNM	12.00	13.75	7	4.50	AB	AB	C	Pi	2000	.....	.....	.....	45	LDA	EGA	62 11/32 (2)	30 5/8	48 1/16	4
1.62- .500	Alu	7.53	12.37	4	2	2.00-4.65	F	CNM	12.00	13.75	7	4.50	AB	AB	C	Pi	2000	.....	.....	.....	45	LDA	EGA	62 11/32 (2)	30 5/8	48 1/16	5
1.62- .500	Alu	7.53	12.34	4	2	2.00-4.65	F	CNM	12.00	13.75	7	4.50	AB	AB	C	Pi	2000	.....	.....	.....	45	LDA	EGA	62 11/32 (2)	30 5/8	48 1/16	6
1.90- .500	Alu	7.53	12.6	4	2	2.00-4.90	F	CNM	12.00	13.75	7	4.50	AB	AB	C	Pi	2000	.....	.....	.....	45	LDA	EGA	62 11/32 (2)	30 5/8	48 1/16	7
2.12- .500	Alu	7.53	2.90	4	2	2.00.....	F	CNM	13.25	.....	5	4.50	AB	AB	C	Pi	2000	.....	.....	.....	45	LD	EGA	57 1/16	42	55 1/4	8
2.12- .500	Alu	7.53	2.90	4	2	2.00.....	F	CNM	13.25	.....	5	4.50	AB	AB	C	Pi	2000	.....	.....	.....	45	LD	EGA	67	42	55 1/4	9
1.37- .372	Lyn	4.87	2.83	3	2	1.50-2.72	F	4140	13.25	7.3	3	2.93	AB	A-E	C	Pi	1800	Uni	Fram	Brg	....	AL	Ele	35	25	40	10
1.37- .372	Lyn	4.87	2.83	3	2	1.50-2.72	F	4140	13.25	7.3	5	2.93	AB	A-E	C	Pi	1800	Uni	Fram	Brg	....	AL	Ele	47 1/2	25	40	11
1.37- .372	Lyn	4.87	2.83	3	2	1.50-2.72	F	4140	13.25	7.3	7	2.93	AB	A-E	C	Pi	1800	AM	Fram	Brg	....	AL	Ele	58	27	45	12
1.31- .500	Alu	5.70	4.33	3	2	1.31-3.25	F	1040	10.00	8.01	5	3.75	Own	Own	C	Si	700	Don	Pur	Pur	....	Own	Ha	38 1/2	23	39 1/8	13
1.47- .500	Alu	6.44	6.22	3	2	1.50-3.71	F	1040	11.00	10.83	5	4.12	Own	Own	C	Si	700	Don	Pur	Pur	....	Own	Ha	41 1/2	24	42 1/2	14
1.53- .503	Alu	6.19	7.27	4	2	1.62-4.10	F	1040	13.25	11.81	5	3.25	Own	Own	C	Si	700	Don	Pur	Pur	....	Own	Ha	47 1/16	27 1/4	46 1/16	15
1.53- .503	Alu	6.19	7.27	4	2	1.62-4.10	F	1040	13.25	11.81	7	3.50	AB	Own	C	Si	700	Don	Pur	Pur	....	Own	Ha	60 1/4	29 1/4	49 1/16	16
1.40- .532	AA	6.43	6.25	3	2	1.50-3.71	F	1040	11.00	9.10	7	3.57	Own	Own	C	Si	700	Don	Pur	Pur	....	Own	Ha	58 1/16	28 3/8	44 1/2	17
1.12- .375	Alu	4.84	4.00	4	2	.....	...	CNM	8.00	5.31	2	....	AB	AB	C	Pi	1650	AC	Pur	DeL	....	DR	Ele	41 1/16	23	30 5/8	18
1.12- .375	Alu	4.84	4.00	4	2	.....	...	CNM	8.00	5.31	..	....	AB	AB	C	Pi	1650	AC	Pur	Pur	....	DR	Ele	47 3/4	22 1/4	33	19
1.12- .375	Alu	4.84	3.56	4	2	.....	...	CNM	8.00	5.31	..	....	AB	AB	C	Pi	1650	AC	Pur	Pur	....	DR	Ele	54 1/16	22 1/2	33	20
1.37- .395	Alu	6.84	7.09	4	2	.....	...	CNM	9.37	8.59	..	....	AB	AB	C	Pi	1650	AM	Pur	Pur	....	DR	Ele	60 1/16	27 5/8	37 11/16	21
1.28- .380	Alu	5.50	5.75	4	1	1.50-3.75	F	1045	8.50	5.37	4	2.37	AB	AB	C	Si	2000	Don[v]	AC	Brg[v]	43	Own	Ha	40 3/8	20	33 1/2	22
1.29- .380	Alu	5.50	5.75	4	1	1.50-3.75	F	1045	8.50	5.37	5	2.37	AB	AB	C	Si	....	Don[v]	AC	Brg[v]	43	Own	Ha	46 3/8	23	36 1/2	23
1.62d-.500	Gl	7.75	21.9	4	2	2.12-4.73	F	1035	12.50	14.7	5	4.00	Own	Own	C	Mu	1500	Don	OP	Pur	50	DR	Ele	56 1/16	37	60 1/4	24
1.62d-.500	Gl	7.75	21.9	4	2	2.12-4.73	F	1035	12.50	14.7	7	4.00	Own	Own	C	Mu	1500	Don	OP	Pur	50	DR	Ele	73 1/16	37	57 1/2	25
1.62d-.500	Gl	7.75	21.2	4	2	2.12-4.73	F	1035	12.50	14.7	7	4.00	Own	Own	C	Mu	1500	Don	OP	Pur	50	DR	Ele	75 1/4	37	51 1/8	26
1.62d-.500	Gl	7.75	23.3	4	2	2.12-4.98	F	1035	12.50	14.7	7	4.00	Own	Own	C	Mu	1500	Don	OP	Pur	50	DR	Ele	73 1/16	37	57 1/8	27
1.62d-.500	Gl	7.75	23.3	4	2	2.12-4.98	F	1035	12.50	14.7	5	4.00	Own	Own	C	Mu	1500	Don	OP	Pur	50	DR	Ele	53 1/16	37	60 1/8	28
1.12- .375	Alu	4.84	4.47	4	2	1.18-3.70	F	CNM	8.00	5.31	5	3.00	AB	AB	C	Pi	1650	.....	Pur	Pur	45	LDA	Ele	50 3/16	25 1/2	35 1/16	29
1.25- .453	Cl	5.12	4.30	3	1	1.12-3.06	F	1045	8.75	3.56	3	2.62	AB	Hes	O	Mu	750	.....	Mic	Mic	....	DR	Ele	48 1/16	24	33 1/16	30
1.50- .450	Cl	5.96	6.00	3	1	1.31-4.06	F	1045	10.50	5.30	3	2.37	AB	Hes	O	Mu	750	.....	Mic	Mic	60	AL	Ele	52 1/16	21 1/4	38 1/2	31
1.25- .375	Alu	4.87	2.56	3	1	1.00-3.50	F	1045	8.00	3.50	7	2.62	AB	Hes	O	Mu	750	.....	Mic	Mic	60	DR	Ele	53 1/16	23 1/8	31 1/8	32
1.37- .469	Alu	6.50	4.00	3	1	1.37-3.87	F	1045	10.25	5.31	7	3.25	AB	Hes	O	Mu	750	.....	Mic	Mic	60	DR	Ele	78 1/16	29	41 1/16	33
2.25- .710	Cl	9.25	20.50	3	1	2.00-5.50	F	1045	15.37	19.60	7	3.75	AB	Hes	O	Mu	780	Vor	Mic	DeL	60	DR	Ele	100 1/2	30 1/2	56 1/16	34
2.25- .710	Cl	9.25	24.75	3	1	2.00-6.00	F	1045	15.37	19.60	7	3.75	AB	Hes	O	Mu	780	Vor	Mic	DeL	60	DR	Ele	100 1/16	30 1/2	58 1/16	35
1.12- .375	Alu	4.84	4.00	4	2	1.18-3.45	F	CNM	8.00	5.31	5	3.00	AB	AB	C	Pi	1650	AC	Pur	Pur	45	DR	Ele	46 5/16	24 1/4	22 3/4	36
1.12- .375	Alu	4.84	3.56	4	2	1.18-3.20	F	CNM	8.00	5.31	7	3.00	AB	AB	C	Pi	1650	AC	Pur	Pur	45	DR	Ele	53 1/16	24 1/4	22 3/4	37
2.37- .525	Alu	10.25	30.59	3	2	3.00-6.93	F	1040	18.00	46.05	7	6.00	BB	BB	C	....	3000	Opt	Win	Mic	50	LN	A-El	.....	.....	.....	38
2.37- .525	Alu	10.25	30.59	3	2	3.00-6.93	F	1040	18.00	46.05	7	6.00	BB	BB	C	....	3000	Opt	Win	Mic	50	LN	A-El	.....	.....	.....	39
2.37- .525	Alu	10.25	30.59	3	2	3.00-6.93	F	1040	18.00	46.05	9	6.00	BB	BB	C	....	3000	Opt	Win	Mic	50	LN	A-El	.....	.....	.....	40
2.37- .525	Alu	10.25	30.59	3	2	3.00-6.93	F	1040	18.00	46.05	9	6.00	BB	BB	C	....	3000	Opt	Win	Mic	50	LN	A-El	.....	.....	.....	41
1.47- .526	Cl	6.68	7.50	4	2	1.75-3.59	F	1040	11.50	8.96	5	3.50	AB	AB	C	Pi	1600	Bur	Del	Del	50	LN	Ele	.....	.....	.....	42
1.47- .526	(10)	6.68	7.50	4	2	1.75-3.59	F	1040	11.50	8.96	7	3.50	AB	AB	C	Pi	1600	Bur	Del	Del	50	LN	Ele	.....	.....	.....	43
1.81- .536	Cl	8.00	15.00	3	2	2.12-4.50	F	1040	14.25	19.11	5	4.50	AB	AB	C	Pi	1600	Bur	Del	Com	50	LN	Ele	.....	.....	.....	44
1.81- .536	Cl	8.00	15.00	3	2	2.12-4.50	F	1040	14.25	19.11	7	4.50	AB	AB	C	Pi	1600	Bur	Del	Com	50	LN	Ele	.....	.....	.....	45
1.81- .536	Cl	8.00	15.00	3	2	2.12-4.50	F	1040	14.25	19.11	9	4.50	AB	AB	C	Pi	1600	Bur	Del	Com	50	LN	Ele	.....	.....	.....	46
1.25- .453	Cl	5.12	3.60	3	1	1.12-3.06	F	1045	8.75	3.56	3	2.62	AB	Hes	O	Mu	750	Opt	Mic	Mic	....	Opt	E-H	33 1/16	21 1/2	38 3/4	47
1.25- .453	Cl	5.12	4.30	3	1	1.12-3.06	F	1045	8.75	3.56	3	2.62	AB	Hes	O	Mu	750	Opt	Mic	Mic	....	Opt	E-H	33 1/16	21 1/2	38 3/4	48
1.50- .450	Cl	5.96	6.00	3	1	1.31-4.06	F	1045	10.50	5.31	3	2.37	AB	Hes	O	Mu	750	Opt	Mic	Mic	....	Opt	E-H	39 1/16	25 3/4	34 1/16	49
1.37- .469	Alu	6.50	3.75	3	1	1.37-3.62	F	1045	10.25	5.31	7	3.25	AB	Hes	O	Mu	750	Opt	Mic	Mic	....	Opt	Ele	50 3/8	21 1/16	41 1/16	50
1.37- .469	Alu	6.50	4.00	3	1	1.37-3.87	F	1045	10.25	5.31	7	3.25	AB	Hes	O	Mu	750	Opt	Mic	Mic	....	Opt	Ele	50 3/8	21 1/16	41 1/16	51
1.81- .531	Alu	7.25	.....	4	2	1.87-4.50	F	4145	11.75	.....	7	4.25	AB	AB	C	Pi	2000	Opt	Com	Mic	50	DRW	E-G	55 1/16	25 3/4	46 3/16	52
1.37- .531	Alu	7.25	6.44	3	1	1.62-4.87	F	1045	11.75	8.31	7	3.50	AB	Hes	O	Mu	750	Opt	Mic	Mic	....	Opt	Ele	55 1/16	25 3/4	46 3/4	53
2.00- .656	Cl	8.37	11.00	3	1	1.87-5.50	F	1045	13.25	12.20	7	4.00	AB	Hes	O	Mu	780	Opt	Mic	Mic	....	Opt	E-G	65 5/16	30 5/8	50 1/16	54
2.00- .656	Alu	3.37	.....	3	2	2.18-5.37	F	4145	13.25	.....	7	4.75	AB	AB	C	Pi	2000	Opt	Com	Mic	50	DRW	E-G	65 5/8	30 5/8	50 1/16	55
2.25- .710	Cl	9.25	24.75	3	1	2.00-6.00	F	1045	15.37	19.60	7	3.75	AB	Hes	O	Mu	780	Opt	Mic	HC	....	Opt	E-G	76	32 3/8	57 1/16	56
2.75- .840	Cl	11.65	50.00	4	1	2.25-7.75	F	1045	20.87	34.70	7	4.25	AB	Hes	O	Mu	1000	Opt	Mic	HC	....	Opt	E-G	95 1/16	46 1/2	65 1/16	57

Com—Commercial Filters Corp.
CNM—Chrome-nickel molybdenum
Cun—Cuno Engineering Corp.
(d)—Dual D—Dry liners used
DeL—DeLuxe Products Corp.
DI—Direct injection
D-N—Delco-Remy or Novo
Don—Donaldson Co.
DR—Delco-Remy Div.
DRW—Delco or Waukesha
EAH—Air, Electric or Hand
EGA—Electric, aux. gas engine or Hand
E-G—Electric or auxiliary gasoline engine
E-H—Electric or hand
Exc—Ex-Cell-O Corp.
G—Auxiliary gasoline engine, electric optional
Gl—Grey Iron Casting
G. M. Corp.—General Motors Corp.
Ha—Hand
HC—Honan-Crane Corp.
Herc—Hercules Motor Corp.
Hes—Hesselman
I—Industrial
Ind—Indiana Wire Cloth Prod. Corp.
(k)—Hand start optional on 1, 2 and 3 cyl.
LB—Leece Neville or Buda
L-D—Leece Neville or Delco-Remy
LDA—Leece-Neville, Delco-Remy or Autolite
LE—Lanova energy cell
LN—Leece Neville Co.
Lyn—Lynite
M—Marine
Mic—Michiana Products Corp.
N—No or none
Mu—Multiple
NI—Nickel Iron
Nug—Nugent
O—Open
OP—Oilpure Refiner Co.
Opt—Optional
PC—Precombustion chamber
Pi—Pintle
P-S—Purolator or Stewart-Warner
Pur—Purolator Products, Inc.
R—Locked in Rod
Si—Single
Sh—Shaft torque; Shaft RPM
T—Trucks
TC—Turbulence chamber
Tr—Tractors
Uni—United Air Cleaner Div.
VI—Vertically In-head
Vik—Viking
V2—Vertically in head, 2 inlets used
WGB—W.G.B. Oil Clarifier Inc.
Vor—Vortex
W—Wet liners used
Vwg—Varies with gear
Wau-Hes—Waukesha-Hesselman
Win—Winslow Filter



BRITISH DIESEL AND

Line Number	ENGINE MAKE AND MODEL	Built under License from	GENERAL																
			Designed for	Type	Number of Cylinders Bore and Stroke (In.)	Cylinder Liners—Type	Cycle	Piston Displacement (Cu. In.)	With Bare Engine: Maximum Brake Hp. at Specified R.P.M.	With Standard Accessories: Max. Intermittent Hp. at Specified R.P.M.	With Standard Accessories: Continuous Sustained Hp. at Specified R.P.M.	Compression Ratio—to 1	Max. Combustion Pressure (Lb. per Sq. In.)	B.M.E.P. at Continuous Hp. (Lb. per Sq. In.)	Weight per Continuous Hp. (Lb.)	Max. Torque in Lb. Ft. at Specified R.P.M.	Shipping Weight (Lb.): Automotive or Industrial	Shipping Weight (Lb.): Marine
1	A.E.C. (1) A209/A210	Ricardo	M	TC	6-4.72x5.59	D	4	587.9	.....	125-1500	100-1500	16.00	900	91.5	32.8	360-1200	.....	3290*
2	A.E.C. A212	Ricardo	M	TC	6-4.72x5.59	D	4	587.9	.....	125-1500	100-1500	16.00	900	91.5	.....	360-1200	.....	.....
3	A.E.C. A173	.....	T,B,Tr,R	DI	6-4.13x5.74	D	4	463.0	95-1800	.....	.....	16.00	1000	108	15.8	330-1150	1500	.....
4	A.E.C. A208	.....	T,B,Tr,R	DI	6-4.72x5.59	D	4	587.9	125-1800	.....	.....	16.00	1000	110	13.4	430-1000	1670	.....
5	Coventry (2) (a) KF	Arm-W	M	DI	4-2⅞x4⅛	N	2	107.1	55-2000	55-2000	50-2000	14.34	1300	92.5	14.2	.....	.....	710
6	Coventry CD	.....	T,B,M,I	AC	4-3.24x4.13	D	4	137.0	45-2800	35-2000	30-2000	18.00	1000	87.5	17.3	.....	520	840
7	Cub (3) LG	.....	M,I	TC	2-3.14x3.93	W	4	61.39	.....	12.8-1800	11.6-1800	18.50	830	83.5	27.2	34-1000	.....	315
8	Dorman (4) 4DSM	.....	M	PC	4-3.54x4.72	D	4	186.4	.....	32-1500	30-1500	17.50	950	86.0	50.0	111-1400	.....	1500
9	Dorman 4DWDM	.....	M	DI	4-4.52x5.11	N	4	329.5	.....	46-1200	43-1200	14.00	900	87.5	53.5	200-1200	.....	2300
10	Dorman 8VRM	.....	M	PC	8-4.12x4.12	N	...	441.2	.....	100-2000	95-2000	17.50	950	86.0	16.1	250-1800	.....	1530
11	Dorman 6DLM	.....	M	DI	6-4.72x7.08	N	4	745.0	.....	112-1200	101-1200	14.00	900	90.0	41.8	462-1000	.....	4230
12	Fowler (5) 2DY1	.....	M	TC	2-3¾x4½	W	4	99.4	16-1500	16-1500	15-1500	16.00	800	79.5	71.0	63-1000	.....	1064
13	Fowler 2DY2	.....	M	TC	2-3¾x4½	W	4	99.4	16-1500	16-1500	15-1500	16.00	800	79.5	74.7	63-1000	.....	1120
14	Fowler 2DX	.....	Tr	TC	2-3¾x4½	W	4	99.4	16-1500	16-1500	15-1500	16.00	800	79.5	63.5	63-1000	.....	952
15	McLaren (6) (b) MR6	.....	I	....	6-5⅛x7.90	....	4	.....	100- 750	.....	.....	.....	750	90.0	41.4	.....	4140	.....
16	Perkins (7) P4	Own	Var	TC	4-3½x5	D	4	192.4	46-2200	46-2200	37.5-1500	16.00	950	93.0	17.3	129-1300	650	725
17	Perkins P6	Own	Var	TC	6-3½x5	D	4	288.6	70-2200	70-2200	52-1500	16.00	950	95.0	17.3	193-1500	846	900
18	Petter (6) (d) 2 L.T.A.	.....	Var	....	2-3.34x3.24	....	2	.....	8-1500	.....	.....	.....	.....	.....	34.0	.....	270	.....
19	Thornycroft (8) TR6	.....	Tr	PC	6-3.56x4.12	D	4	246.5	65-2200	.....	66-2200	18.20	1070	98.0	16.2	168-1300	1068	.....
20	Thornycroft NR6	.....	Tr	DI	6-4.12x6.00	D	4	480.6	100-1800	.....	98-1800	16.00	915	103	17.2	328-1200	1680	.....
21	Thornycroft RJ/2	.....	M	PC	2-4.00x6.00	D	4	150.0	.....	20-1200	18-1200	18.00	850	79.0	79.8	87-1200	1435	.....
22	Thornycroft RTR/6	.....	M	PC	6-3.56x4.12	D	4	246.5	.....	65-2250	55-2100	18.20	900	84.0	26.4	152-2250	1450	.....
23	Thornycroft RNR/6	.....	M	DI	6-4.12x6.00	D	4	480.6	.....	90-1600	75-1500	16.00	900	82.2	26.6	298-1600	2000	.....
24	Thornycroft RL/6	.....	M	PC	6-4.75x6.50	D	4	691.0	.....	145-1800	130-1600	16.00	800	93.0	31.2	426-1600	4060	.....

ABBREVIATIONS

▼—B.S.E.N. 24 V. Ult. 65 t.p.i.
▲—BESA3S6 or BSS5005/203 or EN8
▲—BSS. EN17T
▼—BSS. EN100T
▼▼—3½% Nickel Steel
*—Includes reverse and reduction gears

(a)—Also built in 1, 2, and 3 cylinder models
(b)—Also built in 2, 3, 4 and 5 cyl. models
(c)—To top of fan blade
(d)—Also built in single cylinder model
AC—Air chamber
Ala—Aluminum alloy
Alu—Aluminum
Arm-W—Armstrong-Whitworth
B—Buses
Bry—Bryce
C—Closed
C-B—C.A.V. or Inertia B.T.H.
CI—Cast iron
C-L—C.A.V. starter motor and Lucas dynamo
C-S—C.A.V. or Simms
D—Dry liners used
DI—Direct injection used
Ele—Electric
F—Floating
FS—Forged steel
Ha—Hand

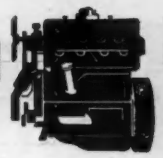
Automobile Makers Want Shows Resumed

Despite reports to the contrary, all automobile manufacturers are definitely interested in a resumption of national automobile shows. Although none is scheduled for this year, it is thought likely that by the fall of 1948 the national automotive exposition again will be attracting visitors by the hundreds of thousands. However, it is not likely to be doing business at the same old stand—Grand Central Palace in New York—since the New York Central Railroad is taking over the Palace for office space. It is reported that there is no other adequate facility in New York to accommodate the show, and that there is a strong possibility that it will be moved to somewhere in the mid-West. Chicago and Cleveland both have large auditoriums that are adequate for the show, and even Detroit cannot be ruled out, although there would have to be some fancy maneuvering there to line up adequate facilities.

There has been considerable sentiment for some time to move the show to Detroit, where it properly should be located as the central point of the industry. In the early days before the automotive center of gravity shifted to Detroit, New York was a logical choice. The main purpose of the show was to attract financial backing for the pioneer manufacturer and incidentally to get deposits on a few cars to provide enough capital to operate. Later the show was useful in attracting dealers. However, the belief now is that the function of the show has changed and that it should be moved to the mid-West. There has been a movement of automotive interests to Detroit in recent years from New York, the most notable being that of the Automobile Manufacturers Association and some of the General Motors executive offices.

Despite recurrent reports that this or that sales manager is against a revival of automobile shows, an authoritative source says that all automotive sales managers are in favor of it. As one pointed out, the automobile shows always were the envy of other industries because the public would pay good money to view the products. There now is considerable thinking going on about the function of the show. It is no longer intended as a medium for specific sales, but is looked upon more as a springboard from which to launch national advertising and publicity campaigns on new models, with individual sales only an incidental factor. Stimulating sales and getting industry public relations across to the public are the main considerations. The show may also be used in promoting industry objectives other than direct sales by featuring programs on safety, parking problems, highway facilities, motor transportation, automobile utility, its effect on the community, and other activities of interest to the industry.

OTHER HEAVY OIL ENGINES



Arrangement	VALVES: Intake Port Diameter and Lift (In.)	VALVES: Exhaust Port Diameter and Lift (In.)	PISTONS: Material	PISTONS: Length (In.)	PISTONS: Weight with Rings and Pin (Lb.)	PISTONS: No. of Compression Rings	PISTONS: No. of Oil Rings	PISTON PIN: Diameter and Length (In.)	PISTON PIN: Locked in—	CONNECTING RODS: Material (S.A.E. No.)	CONNECTING RODS: Center to Center Length (In.)	CONNECTING RODS: Weight with Cap and Bushing (Lb.)	MAIN BEARINGS: Number	MAIN BEARINGS: Diameter (In.)	INJECTION SYSTEM: Make of Pump	INJECTION SYSTEM: Make of Valve	INJECTION SYSTEM: Valve Type, Open or Closed	INJECTION SYSTEM: Orifices	INJECTION SYSTEM: Pressure-Nozzle Opening (Lb. per Sq. In.)	STARTING METHOD: Make	STARTING METHOD: Type	OVERALL DIMENSIONS: Length—Fan to Flywheel (In.)	OVERALL DIMENSIONS: Width (In.)	OVERALL DIMENSIONS: Height—To Top of Air Cleaner (In.)	Line Number
VI	1.73–.480	1.62–.480	Ala	5.82	5.50	3	1	1.58–4.16	F	3435	11.40	7.50	7	3.35	C-S	C-S	C	Pi	1543	C-S	Ele	94 1/16 (6)	33 5/16	40 1/16	1
VI	1.73–.480	1.62–.480	Ala	5.82	.....	3	1	1.58–4.16	F	3435	11.40	.....	7	3.35	C-S	C-S	C	Pi	1543	C-S	Ele	62 1/4	41 1/32	50	2
VI	1.49–.322	1.26–.327	Ala	5.90	4.75	3	2	1.58–3.50	F	3435	10.70	6.50	7	3.35	C-S	C-S	C	Mu	2527	C-S	Ele	52 9/32	28	42 39/64	3
VI	1.57–.480	1.49–.480	Ala	6.83	6.50	3	2	1.58–4.15	F	3435	11.40	7.50	7	3.75	C-S	C-S	C	Mu	2572	C-S	Ele	54 1/4	29 1/4	49 1/2	4
VI	.....	.....	CI	.....	.....	3	2	.....	R	FS	.....	.....	5	.....	C.A.V.	C.A.V.	C	Si	4000	C.A.V.	Ele	.....	.....	.....	5
VI	.....	.....	Alu	.....	.....	3	1	.....	F	FS	.....	.....	5	.....	C.A.V.	.....	C	Pi	3000	C-B	Ele	.....	.....	.....	6
VI	1.22–.255	1.14–.216	Ala	3.42	1.54	3	1	.886–2.72	F	2330	7.28	1.80	2	RB	Bry	Bry	C	Pi	1800	.....	.....	22 1/2	31 1/8	19	7
VI	1.50–.441	1.31–.441	Ala	4.39	2.25	3	2	1.25–3.08	F	▲	9.50	4.75	5	2.50	C.A.V.	C.A.V.	C	Pi	1610	C.A.V.	Ele	52 3/8	24	35 1/2	8
VI	1.68–.526	1.56–.446	Ala	6.55	5.50	4	2	1.62–3.75	F	▼	10.50	8.25	5	3.12	C.A.V.	C.A.V.	C	Pi	2500	C.A.V.	Ele	66	33 1/16	46 1/4	9
VI	1.35–.450	1.37–.450	Ala	4.48	3.75	3	2	1.50–3.44	F	▲	8.75	6.33	5	3.12	C.A.V.	C.A.V.	C	Pi	1750	C.A.V.	Ele	62	30 3/8	45 5/8	10
VI	1.68–.612	1.56–.612	Ala	6.71	6.33	4	2	1.62–4.09	F	▲	14.25	11.0	7	3.62	C.A.V.	C.A.V.	C	Mu	2500	C.A.V.	Ele	106 (6)	36	54 1/2	11
VI	1.50–.382	1.25–.382	YA	4.25	1.75	3	1	.937–3.25	F	△	8.00	3.50	3	1.87	C.A.V.	C.A.V.	C	Pi	1500	C.A.V.	Ele	47 (6)	25	30	12
VI	1.50–.382	1.25–.382	YA	4.25	1.75	3	1	.937–3.25	F	△	8.00	3.50	3	1.87	C.A.V.	C.A.V.	C	Pi	1500	C.A.V.	Ele	52 7/16 (6)	25	30	13
VI	1.50–.382	1.25–.382	YA	4.25	1.75	3	1	.937–3.25	F	▲	8.00	3.50	3	1.87	C.A.V.	C.A.V.	C	Pi	1500	C.A.V.	Ha	32 3/4	24 15/16	31 3/4 (c)	14
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ha	.....	36 1/2	51 1/2	15
.....	1.40–.350	1.18–.350	YA	4.25	2.50	3	2	1.25–2.96	F	▼	.....	3.75	5	2.75	C.A.V.	C.A.V.	O	Mu	120	C-L	Ele	28 1/2	24 1/2	33	16
.....	1.40–.350	1.18–.350	YA	4.25	2.50	3	2	1.25–2.96	F	▼	.....	3.75	7	2.75	C.A.V.	C.A.V.	O	Mu	120	C-L	Ele	35	24 1/2	33	17
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	Ha	25 1/4	.....	23 1/4	18
VI	1.43–.393	1.25x.393	Ala	4.34	2.68	3	2	1.25x3.00	F	4130	8.00	3.75	7	2.50	C.A.V.	C.A.V.	C	Pi	1600	C.A.V.	Ele	41 7/16	22 1/4	38 1/2	19
VI	1.62–.510	1.43x.510	Ala	5.32	4.18	3	2	1.37x3.56	F	4130	13.00	7.75	7	3.50	C.A.V.	C.A.V.	C	Mu	2900	C.A.V.	Ele	50 7/8	27 3/8	43 1/4	20
VI	1.56–.429	1.56x.429	YAc	6.50	4.25	4	1	1.50x3.62	F	▼▼	13.00	7.50	3	2.75	C.A.V.	C.A.V.	C	Pi	1500	C.A.V.	Ele	55 9/16	24 1/2	43 3/8	21
VI	1.43–.393	1.25x.393	YA	4.34	2.68	3	2	1.25x3.00	F	4130	8.00	3.75	7	2.50	C.A.V.	C.A.V.	C	Pi	1690	C.A.V.	Ele	62 1/2	24 1/2	39	22
VI	1.62–.510	1.43x.510	YA	5.32	4.18	3	2	1.37x3.56	F	4130	13.00	7.75	7	3.50	C.AV..	C.A.V.	C	Mu	2800	C.A.V.	Ele	78	28	42 3/4	23
VI	1.75–.406	1.75x.406	YAc	6.50	6.75	3	2	1.62x4.11	F	▼▼	13.81	9.50	7	3.50	C.A.V.	C.A.V.	C	Pi	1500	C.A.V.	Ele	105 5/16	32 1/8	60 1/2	24

I—Industrial
M—Marine
Mu—Multiple
N—No or None
O—Open
PC—Precombustion chamber
Pi—Pintle
R—Railcars
R—Locked in Rod
RB—Roller bearings
Si—Single
T—Trucks
TC—Turbulence chamber
Tr—Tractors
Var—Various
VI—Vertically In-head
W—Wet liners used
YA—Special "Y" alloy, heat treated
YAc—"Y" alloy with cast iron inserts carrying rings
(1)—Associated Equipment Co., Ltd.
(2)—Coventry Diesel Engine, Ltd.
(3)—Oil Engines (Coventry) Ltd.
(4)—W. H. Dorman & Co., Ltd.
(5)—John Fowler & Co. (Leeds) Ltd.
(6)—Associated British Oil Engines, Ltd.
(7)—F. Perkins, Ltd.
(8)—J. I. Thornycroft & Co., Ltd.

46% of British Passenger Cars Built for Export

1946 British Car Production by Taxable HP Ratings*

Month	Total	Services	Production for Home Market: Total	Not exceeding 8 h.p.	Over 8 h.p. and not exceeding 12 h.p.	Over 12 h.p. and not exceeding 16 h.p.	Over 16 h.p. and not exceeding 20 h.p.	Over 20 h.p.	Production for Export: Total	Not exceeding 8 h.p.	Over 8 h.p. and not exceeding 12 h.p.	Over 12 h.p. and not exceeding 16 h.p.	Over 16 h.p. and not exceeding 20 h.p.	Over 20 h.p.
Jan.	6,319	134	3,671	1,460	1,916	231	31	33	2,514	1,023	1,350	98	31	14
Feb.	10,701	81	5,182	2,493	2,154	483	41	11	5,438	2,557	2,360	416	85	20
Mar.	12,419	141	5,890	2,515	2,655	613	61	36	6,388	2,965	2,743	550	107	23
April	15,348	117	7,874	3,344	3,603	793	96	38	7,357	3,062	3,383	791	90	31
May	18,113	51	9,721	3,660	4,758	1,079	128	96	8,341	3,116	4,212	785	119	109
June	20,365	46	10,682	4,073	5,210	1,150	191	58	9,637	3,051	5,205	1,158	106	117
July	16,269	23	9,028	3,379	4,483	956	164	56	7,218	2,835	3,434	757	100	92
Aug.	20,076	39	10,960	3,719	5,499	1,392	223	127	9,077	3,052	4,480	1,328	70	147
Sept.	20,612	19	12,089	4,755	5,288	1,749	208	89	8,504	3,019	4,375	962	62	86
Oct.	26,767	27	14,993	4,947	7,276	2,355	241	174	11,747	3,803	6,047	1,723	47	127
Nov.	25,346	27	13,786	4,823	6,315	2,219	258	171	11,533	3,973	5,525	1,804	54	177
11 Mos.	192,335	705	103,876	39,168	49,167	13,020	1,632	889	87,754	32,456	43,114	10,370	871	943
12 Mos.—1945	16,197	4,106	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

(*)Including chassis delivered as such by motor manufacturers.

AMERICAN OUTBOARD MOTORS

MAKE AND MODEL	Power Head	Number of Cylinders	Bore and Stroke (In.)	Piston Displacement (Cu In.)	Engine Type	Brake Hp. at R.P.M. O.B.C. Rating	Engine Weight (Lb.) Fully Equipped	Piston Rings—Number and Width	Propeller: Diameter (In.)	Propeller: Pitch	Propeller: Number of Blades	Starting Device	Fuel Tank Capacity (Pts.)	Gear: Ratio	Gear: Tooth Pitch	Gear: Material (S.A.E. No.)	Gearcase Bearing	Grease Seals on Gearcase	Ignition System Type	Carburetor: Make	Carburetor: Size (In.)	Carburetor: Slow Speed Adjustment	Carburetor: Starting Mixture Obtained by—	Spark Plug—Make and Model	Bearings: Main	Bearings: Connecting Rod	Exhaust—Type	Cooling System	Reverse	Lubrication—Pints Oil to 1 Gal. Gasoline
Champion (1) 1J	RV –2 Port	1	2 1/16 x 1 3/4	5.84	2-Cy	4.2-4300	37	2–1/8	8	5 3/4	2	Cord	10	14-24	.....	.....	Pl	Y	Mag	Tll	3/4	Y	Ch	CH-7	Pl	A	Un	Ce	N	Y 3/4
Champion 4J	RB –2 Port	2	2 1/16 x 1 3/4	12.41	AF	.....	47 1/2	3–1/8	8 1/8	8	2	RR	12	14-24	.....	.....	Bo	Y	Mag	Tll	.....	Y	Ch	CH-H17A	Bo	Bo	Un	Ce	N	Y 3/4
Elgin (2) 571.58301	Re.V–2 Port	1	1 3/4 x 1 3/8	2.43	2-Cy	1.3-4000	19 1/2	2–1/8	6 1/2	5	2	Cord	3 1/2	12-21	14.00	X1515	Pl	Y	Mag	Tll	.570	Y	Ch	Al-C13	Bo	Pl	Un	Air	N	Y 3/4
Elgin 571.58401	Re.V–2 Port	1	2x1 1/16	4.91	2-Cy	2.5-4000	33 1/2	2-.124	7 1/2	4 1/2	2	Cord	7 1/2	14-21	12.00	X1515	Pl	Y	Mag	Tll	.748	Y	Ch	Al-C13	Bo	Pl	Un	VP	N	Y 3/4
Elgin 571.58501	Re.V–2 Port	2	1 3/4 x 1 1/16	7.52	AF	.....	33 1/2	2-.124	7 1/2	5 1/2	2	Cord	7 1/2	14-21	12.00	X1515	Pl	Y	Mag	Tll	.748	Y	Ch	Al-C13	Bo	Pl	Un	VP	N	Y 3/4
Elgin 571.58601	Re.V–2 Port	2	2x1 1/16	10.61	AF	.....	39 1/2	2-.124	7 1/2	7 1/2	2	Cord	10	14-21	12.00	X1515	Pl	Y	Mag	Tll	.748	Y	Ch	Al-C13	Bo	Pl	Un	VP	N	Y 3/4
Evinrude (3) Ranger	Ch.V–	1	1 3/4 x 1 3/4	2.00	.....	1.1-3750	22	2–1/8	6	5	2	RR	3.84	13-20	.....	.....	.....	.....	Mag	Own	.....	.....	.....	CH-H10J	.....	.....	Un	Ce	N	Y 1/2
Evinrude Sportsman	Ch.V–	1	1 3/4 x 1 1/16	3.75	.....	2.0-3500	33	2–1/8	7	5 1/2	2	RR	3.84	12-20	.....	.....	.....	.....	Mag	Own	.....	.....	.....	CH-H10J	.....	.....	Un	Ce	Y	Y 1/2
Evinrude Sportwin	Ch.V–	2	1 3/4 x 1 1/16	6.60	.....	3.3-3500	45	2–1/8	7	5 1/2	2	RR	7	13-18	.....	.....	.....	.....	Mag	Own	.....	.....	.....	CH-H10J	.....	.....	Un	Ce	Y	Y 1/2
Evinrude Zephyr	RV –	4	1 3/4 x 1 1/16	9.70	.....	5.4-4000	52	2–1/8	7 1/2	7 1/2	2	RR	7	13-20	.....	.....	.....	.....	Mag	Own	.....	.....	.....	CH-*	.....	.....	Un	Ce	N	Y 1/2
Evinrude Lightfour	RV –	4	1 3/4 x 1 1/16	15.0	.....	9.7-4000	66	3–1/8	8 3/4	9	2	RR	10	11-17	.....	.....	.....	.....	Mag	Own	.....	.....	.....	CH-M5	.....	.....	Un	Ce	N	Y 3/4
Evinrude Speeditwin	RV –	2	2 1/16 x 2 1/16	30.0	.....	22.5-4000	116	3–1/8	10 1/2	10 1/2	3	Cord	20	18-25	.....	.....	.....	.....	Mag	Own	.....	.....	.....	CH-M5	.....	.....	Un	Ce	N	1 1/2
Evinrude Speedifour	RV –	4	2 1/16 x 2 1/16	50.0	.....	33.4-4000	150	3–1/8	10 1/2	13	3	Cord	29.2	18-25	.....	.....	.....	.....	Mag	Own	.....	.....	.....	CH-M5	.....	.....	Un	Ce	N	1 1/2
Firestone (4) 476	Ch.V–2 Port	1	2 1/16 x 1 3/4	6.23	2-Cy	3.6-4000	37	2–1/8	7 1/2	6	2	Cord	8	13-21	12.56	NE8640	Pl	Y	Mag	Tll	3/4	Y	Ch	Fi-F50LF	Pl	Bo	Un	Rot	N	1 1/2
Firestone 477	Ch.V–2 Port	1	2 1/16 x 1 3/4	6.23	2-Cy	3.6-4000	43	2–1/8	7 1/2	6	2	RR	8	13-21	12.56	NE8640	Pl	Y	Mag	Tll	3/4	Y	Ch	Fi-F50LF	Pl	Bo	Un	Rot	N	1 1/2
Firestone 479	Ch.V–2 Port	2	2x1 3/4	.....	AF	7.5-4200	51	2–1/8	8	9	2	RR	8	13-21	10.75	NE8640	Bo	Y	Mag	Tll	1 1/16	Y	Ch	Fi-F50LF	Pl	Bo	Un	Rot	N	1 1/2
Flambeau (5) 2.5-46-1	–3 Port	1	1 1/16 x 1 1/16	4.62	2-Cy	2.5-4000	26	3–1/8	7	6	2	RR	8	13-24	12.00	.....	Pl	Y	Mag	Els	.....	Y	Pr	CH-J9	Pl	Pl	Un	Rot	N	1 1/2
Flambeau 5-46-1	–3 Port	2	1 1/16 x 1 1/16	9.24	AF	5.1-4000	31 1/2	3–1/8	8	7 1/2	2	RR	7	13-24	12.00	.....	Pl	Y	Mag	Els	.....	Y	Fl	CH-J9	Pl	Pl	Un	Rot	N	1 1/2
Hiawatha (6) Twin	Re.V–	2	1 1/16 x 1 1/2	8.84	AF	5.0-4000	41	3–1/8	7 1/2	7 1/4	2	RR	6 1/2	13-20	10.38	4615	Pl	Y	Mag	Own	1/16	Y	Pr	CH-J9	Pl	Pl	Un	Rot	Y	1 1/2
Hiawatha Single	Re.V–	1	2 1/16 x 1 1/16	5.48	.....	3.0-4000	35	3–1/8	7	6	2	Cord	6 1/2	13-20	10.38	4615	Pl	Y	Mag	Own	1/16	Y	Pr	CH-J9	Pl	Pl	Un	Rot	.....	1 1/2
Johnson (7) HD	RV –3 Port	2	1 3/16 x 1 1/2	4.08	AF	2.5-4000	31	2–1/8	6 5/8	5 1/4	2	RR	4.88	13-20	13.30	4615	Pl	Y	Mag	Own	1/16	Y	Pr	CH-J8J	Pl	Pl	Un	Rot	Y	1 1/2
Johnson TD	RV –3 Port	2	1 1/16 x 1 1/2	8.84	AF	5.0-4000	44	3–1/8	8	7 1/4	2	RR	7	14-25	12.00	4615	Pl	Y	Mag	Own	1/16	Y	Pr	CH-J8J	Pl	Pl	Un	Rot	Y	1 1/2
Johnson KD	RV –2 Port	2	2 1/16 x 1 1/16	13.96	AF	9.8-4000	70 1/2	3–1/8	9 1/2	9 1/2	2	RR	13	14-24	10.00	4615	Bo	Y	Mag	Own	1 1/16	Y	CF	CH-5MJ	Pl	Pl	Un	PV	Y	1
Johnson SD	RV –2 Port	2	2 1/16 x 2 1/4	22.09	AF	16.0-4000	92 1/2	3–1/8	10	10	3	RR	20	14-24	10.00	4615	Bo	Y	Mag	Own	1/8	Y	Pr	CH-5MJ	Pl	Pl	Un	PV	N	1
Johnson PO	RV –2 Port	2	2 1/16 x 2.52	29.92	O-2	22.0-4000	115 3/4	3–1/8	12	12	3	Cord	20	12-21	7.50	2512	Bo	Y	Mag	Vac	2	Y	CF	CH-R7	Pl	A	Un	PV	N	1
Lauson (8) OB-410	.....	1	2 1/16 x 1 3/4	6.10	4-Cy	.....	39	3–.....	7 1/2	6	2	Cord	6	12-22	.....	.....	Pl	Y	Mag	Own	.....	Y	Ch	CH-J-8	A	Pl	Un	Air	N	1 1/2‡
Martin (9) C	CP–	2	2x1 3/4	11.00	AF	7.2-4000	43	3–1/8	8	8	2	RR	8	13-20	.....	4150	O1	Y	Mag	Tll	.....	Y	CF	CH-J8J	Ol	Pl	Un	.....	Y	1/2
Martin B	CP–	2	1 1/16 x 1 1/2	5.77	AF	3.8-4000	36	2–1/8	7 1/2	6	2	RR	6	13-20	.....	4150	O1	Y	Mag	Tll	.....	Y	CF	CH-J8J	Ol	Pl	Un	.....	Y	1/2
Martin A	CP–	1	1 1/16 x 1 1/2	2.88	AF	1.9-4000	29	2–1/8	6 1/2	4 1/2	2	RR	6	13-20	.....	4150	O1	Y	Mag	Tll	.....	Y	CF	CH-J8J	Ol	Pl	Un	.....	Y	1/2
Mercury (10) Comet	.....	1	2x1 3/4	5.50	2-Cy	.....	36	.....	7 1/2	7 1/2	2	.....	.....	12-22	.....	.....	.....	.....	Mag	Tll	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercury Rocket	.....	2	2x1 3/4	11.00	AF	.....	45	.....	7 1/2	7 1/2	2	.....	.....	14-19	.....	.....	.....	.....	Mag	Tll	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercury Lightning	.....	2	2 1/16 x 2 1/16	19.80	AF	.....	59	.....	7 1/2	9	3	.....	.....	16-21	.....	.....	.....	.....	Mag	Tll	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Neptune (11) Jr. Single	–2 Port	1	1 1/16 x 1 1/2	2.8	2-Cy	1.8-3000	17	2–1/8	6	5	2	RR	2	13-20	14.00	Dab	Pl	Y	Mag	Tll	.....	Y	Fl	CH-J6	Pl	Pl	Un	Ce	N	3/4
Neptune Single	–3 Port	1	2 1/16 x 1 1/2	5.0	2-Cy	2.0-2800	30	3–1/8	7 1/2	5 1/2	2	RR	4	14-21	14.00	2345	Pl	Y	Mag	Tll	.....	Y	Fl	CH-J6	Pl	Pl	Un	Ce	N	1
Neptune Special	–2 Port	2	.....	5.7	AF	3.5-4000	33	.....	7 1/2	5 1/8	2	RR	4	13-20	14.00	2345	Pl	Y	Mag	Tll	.....	Y	Fl	CH	Pl	Pl	Un	Rot	N	1
Neptune Jr. Twin	–3 Port	2	2 1/16 x 1 1/2	10.0	O-2	4.0-3000	45	3–1/8	8	7	2	RR	8	14-21	12.00	2345	Pl	Y	Mag	Tll	.....	.....	Fl	CH-J6	Pl	Pl	Un	Ce	N	1
Neptune Six	–3 Port	2	2 1/16 x 1 1/2	10.0	AF	6.0-4000	47	3–1/8	8	7	2	RR	8	14-21	12.00	2345	Pl	Y	Mag	Tll	.....	Y	Fl	CH-J6	Bo	Pl	Mu	Ce	N	1
Neptune Nine	–3 Port	2	2 1/16 x 2	15.9	AF	9.5-4000	58	3–1/8	9	9	3	RR	8	12-21	8.00	2345	A	Y	Mag	Tll	.....	Y	Fl	CH-J6	Bo	Pl	Mu	Ce	N	1
Neptune Master Twin	–3 Port	2	2 1/16 x 2	.....	.....	16.0-4000	95	3–1/8	10	10	3	RR	16	12-21	.....	.....	.....	.....	Mag	Tll	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scott-Atwater (4) 470	Ch.V–2 Port	1	2 1/16 x 1 3/4	6.23	2-Cy	3.6-4000	40	2–1/8	7 1/2	6	2	Cord	8	13-21	12.56	NE8640	Pl	Y	Mag	Tll	3/4	Y	Ch	CH-H10	Pl	Bo	Un	Rot	N	1/2
Scott-Atwater 471	Ch.V–2 Port	1	2 1/16 x 1 3/4	6.23	2-Cy	3.6-4000	43	2–1/8	7 1/2	6	2	RR	8	13-21	12.56	NE8640	Pl	Y	Mag	Tll	3/4	Y	Ch	CH-H10	Pl	Bo	Un	Rot	N	1/2
Scott-Atwater 472	Ch.V–2 Port	2	2x1 3/4	11.00	AF	7.5-4200	48	2–1/8	8	9	2	Cord	8	13-21	10.75	NE8640	Bo	Y	Mag	Tll	1 1/16	Y	Ch	CH-H10	Pl	Bo	Un	Rot	N	1/2
Scott-Atwater 473	Ch.V–2 Port	2	2x1 3/4	11.00	AF	7.5-4200	51	2–1/8	8	9	2	RR	8	13-21	10.75	NE8640	Bo	Y	Mag	Tll	1 1/16	Y	Ch	CH-H10	Pl	Bo	Un	Rot	N	1/2
Sea-Bee (12) Twin	Re.V–	2	1 1/16 x 1 1/2	8.84	AF	5.0-4000	41	3–1/8	7 1/2	7 1/4	2	RR	6 1/2	13-20	10.38	4615	Pl	Y	Mag	Own	1/16	Y	Pr	CH-J9	Pl	Pl	Un	Rot	Y	1/2
Sea-Bee Single	Re.V–	1	2 1/16 x 1 1/16	5.48	.....	3.0-4000	35	3–1/8	7	6	2	Cord	6 1/2	13-20	10.38	4615	Pl	Y	Mag	Own	1/16	Y	Pr	CH-J9	Pl	Pl	Un	Rot	.....	1/2
Sea King (6) Single	Re.V–	1	2 1/16 x 1 1/16	5.48	.....	3.0-4000	35	3–1/8	7	6	2	Cord	6 1/2	13-20	10.38	4615	Pl	Y	Mag	Own	1/16	Y	Pr	CH-J9	Pl	Pl	Un	Rot	.....	1/2
Sea King (13) Twin	Re.V–	2	1 1/16 x 1 1/2	8.84	AF	5.0-4000	41	3–1/8	7 1/2	7 1/4	2	RR	6 1/2	13-20	10.38	4615	Pl	Y	Mag	Own	1/16	Y	Pr	CH-J9	Pl	Pl	Un	Rot	Y	1/2

ABBREVIATIONS

A—Antifriction bearing
AF—Alternate Firing
Al—All State
Bo—Plain and anti-friction bearing
Ce—Centrifugal
CF—Choke and Flood
Ch—Choke
CH—Champion Spark Plug Co.
Ch-V—Check Valve
CP—Cam operated poppet valve
Cy—Cycle
Dab—Die cast Aluminum Bronze
Els—Eiseman
Fl—Flooding
Mag—Magneto
Mu—Muffler with underwater siphon
N—No or None
Ol—Oilite bearings
O-2—Opposed two cycle
Pl—Plain bearing
Pr—Primer
PV—Pressure Vacuum
RB—Rotary and Booster Valve
Re.V—Reed Valve
Rot—Rotary Pump
RR—Rewinding Rope
RV—Rotary Valve
Tll—Tillotson Carburetor
Un—Underwater
Vac—Vacturi
VP—Vane Pump
Y—Yes

*—J10 Commercial J
‡—Separate crankcase
(1)—Champion Motors Co.
(2)—West Bend Aluminum Co.
(3)—Evinrude Motors Division
(4)—Scott-Atwater Mfg. Co., Inc.
(5)—Metal Products Corp.
(6)—Gamble Stores
(7)—Johnson Motors
(8)—Lauson Div., Hart-Carter Co.
(9)—Martin Motors Div., National Pressure Cooker Co.
(10)—Kiekhaefer Corp.
(11)—Muncie Gear Works, Inc.
(12)—Goodyear Tire & Rubber Co.
(13)—Montgomery Ward

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MAKE AND MODEL	ENGINE										GENERAL				FUEL SYSTEM			TRANSMISSION			REAR AXLE								
	Number of Cylinders, Bore and Stroke (In.)	Max. Brake Hp. at Specified R.P.M.	Piston Displacement (Cu. In.)	Compression Ratio (to-1)	Cylinder Arrangement	No. of Main Bearings	Valve Location	Crankcase Type	Piston Material	Camshaft Drive	Wheelbase (In.)	Tread-Rear (In.)	Tires (In.)	Oil Pressure to-	Carburetor—No. Used and Type	Supercharged	Clutch Type	Location	Type	No. of Forward Speeds Synchronizing Clutches	Final Drive	Gear Ratio (to-1)	Torque taken by	Drive on	Independent Suspension	Service Brakes	Servo Unit Fitted	Chassis Weight (Lb.)
A.C. 16-HP	6-2.56x3.94	74-4500	121.4								117.0	55.0	5.50/17															
Allard Two-seater	8-3.06x3.75	85-3800	221.0	6.21	V	3	L	In	AL	H	106.0	50.0	6.25/16	abc	1-Do	N	SP	U	Hs	3 Y	SB		tt	R	F	H	N	1990
Allard Four-seater	8-3.06x3.75	85-3800	221.0	6.21	V	3	L	In	AL	H	112.0	50.0	6.25/16	abc	1-Do	N	SP	U	Hs	3 Y	SB		tt	R	F	H	N	2010
Allard Coupe	8-3.06x3.75	85-3800	221.0	6.21	V	3	L	In	AL	H	112.0	60.0	6.25/16	abc	1-Do	N	SP	U	Hs	3 Y	SB		tt	R	F	H		2010
Alta Racing	4-3.08x3.08	240-6700	90.7	7.10	I	3	I	In	AL	C	101.0	52.0	7.00/16◇	abce	2-Ho	Y	SP	U	Hs	4 Y	DR	4.00		R	A	H	N	1300
Alta P.W.	4-3.28x3.54	162-5600	119.1	6.40	I	3	I	In	AL	C	101.0◇	52.0	6.00/16	abce	1-Ho	Y	SP	U	Hs	4 Y	SB	3.80		R	A	H	N	1600
Alvis Fourteen	4-2.91x4.33	65-4000	115.4	6.90	I	3	I	In	AL	C	108.0	54.0	6.00/16	abce	1-Ho	N	SP	U	Hs	4 Y	Hy	4.87	Sp	R	A	M	N	1900
Armstrong Siddely 16-HP	6-2.56x3.94	70-4200	121.4	7.00	I	4	I	In	AL	C	115.0	54.5	5.50/17	abce	1-Do	N	SP	U	Hs	4 Y	SB	3.80		R	F	H	N	1840
Austin Eight	4-2.23x3.50	24-4400	54.9	6.80	I	3	L	In	AL	C	88.5	45.0	4.50/17	abce	1-Do	N	SP	U	♣♣	4 .	Hy	5.10	Sp	R	F	♦	N	1840
Austin Ten	4-2.50x3.50	30-4000	68.6	6.50	I	3	L	In	AL	C	93.7	48.0	5.00/16	abce	1-Do	N	SP	U	Hs	4 Y	SB	5.43	Sp	R	N	M	N	17014
Austin Twelve	4-2.63x4.00	40-4000	93.6	6.24	I	3	L	In	AL	C	104.5	56.0	5.50/16	abce	1-Do	N	SP	U	Hs	4 Y	SB	4.89	Sp	R	N	M	N	19754
Austin Sixteen	4-3.12x4.37	64-3800	134.1	6.50	I	3	I	In	AL	C	104.5	56.0	5.75/16	abce	1-Do	N	SP	U	Hs	4 Y	SB	4.33	Sp	R	N	M	N	27128
Bentley VI	6-3.50x4.50	. . . . .	260.0	6.40	V	7	F	In	AL	H	120.0	58.5	6.50/16	abcde	2-Ho	N	SP	U	Hs	4 Y	Hy	3.72	Sp	R	F	♦	Y	29614
Bristol 65	6-2.59x3.78	85-4500	118.2	7.40	I	4	I	In	AL	C	114.0	54.0	5.50/16	abcd	3-Do	N	SP	U	Hs	4 Y	SB	3.90	Ta	R	T	H	N	2016
Citroen 11CL-BPVS	4-3.08x3.94	42-3200	116.6	5.90	I	3	I	In	Als	C	114.5	52.7	6.50/16	a	1-Do	N	SP	U	Hs	3 Y	SB	3.44	. .	F	F	H	N	2295
Daimler DB-18	6-2.74x4.35	70-4200	153.8	7.08	I	4	I	In	AL	C	114.0	52.0	6.00/16	abcde	1-SU	N	H	U	Sa	4 . .	SB	4.37	. .	R	F	M	. .	23534
Daimler DE-27	6-3.35x4.72	110-3600	249.7	6.30	I	4	I	In	AL	C	138.4	63.0	8.00/17	abcde	2-SU	N	H	U	Sa	4 . .	Hy	4.72	. .	R	F	.	.	39648
Daimler DE-36	8-3.35x4.72	150-3600	333.0	6.30	I	5	I	In	AL	C	147.0	63.0	9.00/17	abcde	2-SU	N	H	U	Sa	4 . .	Hy			R	F	.	.	41448
Ford Anglia	4-2.23x3.64	23-4000	56.9	6.30	I	3	L	In	AL	C	90.0	45.0	4.50/17	abce	1-Do	N	SP	U	Hs	3 Y	SB	5.50	tt	R	N	M	N	960
Ford Prefect	4-2.50x3.64	30-4000	71.5	6.16	I	3	L	In	AL	C	94.0	45.0	5.00/16	abce	1-Do	N	SP	U	Hs	3 Y	SB	5.50	tt	R	N	M	N	1016
Frazer-Nash 100	6-2.59x3.78	100-5000	118.2	8.50	I	4	I	In	AL	C	94.5	48.0	5.25/16	abcd	3-Do	N	SP	U	Hs	4 Y	SB	3.50	Ta	R	T	H	N	1680
Gordano	4-3.03x3.15	. . . . .	91.0	. . . .	I	5	I	Se	AL	. .	102.0	56.0	5.00/18	ac	-Do	N	SP	U	Hs	4 Y	Hy	4.50	. .	R	A	.	N	1150
Grantham	2-2.83x2.87	15-4000	36.2	6.00	O	2	I	Se	AL	C	78.7	46.5	4.00/15	abce	1-Do	N	SP	U	Hs	4 Y	SB	5.71	Sp	F	A	♦	N	797
Healey 2-4 Litre	4-3.17x4.72	104-4600	149.0	6.50	I	3	I	In	AL	C	102.0	54.0	5.75/15	abc	2-Ho	N	SP	U	Hs	4 Y	SB	3.50	tt	R	F	H	N	1792
Hillman Minx	4-2.48x3.74	35-4100	72.2	6.50	I	3	L	In	AL	C	92.0	43.5	5.00/16	abce	1-Do	N	SP	U	Hs	4 Y	SB	5.22	Sp	R	N	M	N	19314
Hillman Estate	4-2.48x3.74	35-4100	72.2	6.50	I	3	L	In	AL	C	92.0	50.6	5.25/16	abce	1-Do	N	SP	U	Hs	4 Y	SB	5.22	Sp	R	N	M	N	22754
H.R.G. Two-seater	4-2.38x3.74	40-5200	65.5	7.75	. . .	. .	I	. . .	. . .	. . .	99.5	45.0	4.75/17	. . . . .	. . . . .	. .	. . .	. .	. . . .	4 . .	. . . . .	. . . .	. .	R	N	. . .	. . .	15124
H.R.G. 1½ Litre	4-2.67x4.05	61-4800	91.2	7.00	. . .	. .	I	. . .	. . .	. . .	103.0	45.0	4.75/17	. . . . .	. . . . .	. .	. . .	. .	. . . .	4 . .	. . . . .	. . . .	. .	R	N	. . .	. . .	17824
Humber Hawk	4-2.95x4.33	56-3800	118.6	6.40	I	3	L	In	AL	C	114.0	56.0	5.75/16	abc	1-Do	N	SP	U	Hs	4 Y	SB	4.78	Sp	R	F	H	N	1995
Humber Snipe	4-2.74x4.72	65-3500	166.6	6.40	I	4	L	In	AL	C	114.0	56.0	6.00/16	abcde	1-Do	N	SP	U	Hs	4 Y	SB	4.67	Sp	R	F	H	N	2492
Humber Super Snipe	6-3.35x4.72	100-3400	249.2	6.25	I	4	L	In	AL	C	114.0	56.0	6.00/16	abcde	1-Do	N	SP	U	Hs	4 Y	SB	4.09	Sp	R	F	H	N	2556
Humber Pullman	6-3.35x4.72	100-3400	249.2	6.25	I	4	L	In	AL	C	127.5	61.0	7.00/16	abcde	1-Do	N	SP	U	Hs	4 Y	SB	4.09	Sp	R	F	H	N	2900
Invicta Black Prince	6-3.29x3.82	120-5000	183.0	7.25	I	7	I	In	AL	C	120.0	57.0	6.00/16	abce	3-Ho	N	. . .	U	Ca	▲ N	Hy	4.27	▲	R	A	M	N	2300
Jaguar 1½ Litre	4-2.87x4.17	65-4600	108.3	7.50	I	3	I	In	AL	C	112.5	55.0	5.65/18	abcd	1-Ho	N	SP	U	Hs	4 Y	Hy	4.87	Sp	R	N	M	N	28004
Jaguar 2½ Litre	6-2.87x4.17	102-4600	162.5	7.60	I	7	I	In	AL	C	120.0	56.0	5.85/18	abcd	2-Ho	N	SP	U	Hs	4 Y	Hy	4.55	Sp	R	N	M	N	35284
Jaguar 3½ Litre	6-3.23x4.33	125-4250	212.6	7.20	I	7	I	In	AL	C	120.0	56.0	5.85/18	abcd	2-Ho	N	SP	U	Hs	4 Y	Hy	4.27	Sp	R	N	M	N	35284
Jensen P.W.M.	8-3.34x3.34	130-4300	236.0	7.25	I	9	I	In	Ash	C	126.0	59.0	6.50/16	abce	2-Ho	N	SH	U	Hs	4 Y	Wo	3.40	Ta	R	F	H	N	2128
Jowett Javelin	4-2.85x3.54	50-4250	90.5	. . . .	Ho	. .	I	. . .	. . .	. . .	104.0	49.0	. . . . .	. . . . .	. . . . .	. .	. . .	. .	Hs	4 . .	. . . . .	. . . .	. .	R	F	M	. . .	. . .	10824
Kendall 6-HP	2-2.83x2.87	15-4000	36.2	6.00	. . .	. .	I	. . .	. . .	. . .	42.7	46.5	4.00/15	. . . . .	. . . . .	. .	. . .	. .	. . . .	4 . .	. . . . .	. . . .	. .	F	A	. .	. . .	1063
Lagonda 2½ Litre	6-3.07x3.54	105-5000	157.3	. . . .	. . .	. .	I	. . .	. . .	. . .	116.0	56.2	6.00/16	. . . . .	. . . . .	. .	. . .	. .	. . . .	. . . .	. . . . .	. . . .	. .	.	A	. .	. . .	3150
Lanchester LD-10	4-2.50x4.00	40-4200	78.5	7.40	II	3	I	In	AL	C	99.0	48.0	5.25/16	abcde	1-Do	N	H	U	Sa	4 . .	Hy	5.00	. .	R	A	M	. .	1344
Lea-Francis 12-HP	4-2.71x3.93	50-4800	22.8	7.25	I	3	I	In	AL	▼	111.0	52.3	5.50/17	abce	1-Ho	N	SP	U	Hs	4 Y	SB	5.12	Sp	R	N	M	N	1716
Lea-Francis 14-HP	4-2.95x3.93	65-4800	26.8	7.25	I	3	I	In	AL	▼	111.0	52.3	5.50/17	abce	1-Ho	N	SP	U	Hs	4 Y	SB	4.87	Sp	R	N	M	N	1716
M.G. Midget-Series "TC"	4-2.61x3.54	54-5200	76.2	7.30	I	3	I	In	AL	C	94.0	45.0	4.50/19	abce	2-Do	N	SP	U	Hs	4 Y	SB	5.12	Sp	R	N	H	N	1196
Morgan Two-seater	4-2.50x3.94	40-4300	77.2	7.00	. . .	. .	I	. . .	. . .	. . .	92.0	45.0	4.50/17	. . . . .	. . . . .	. .	. . .	. .	. . . .	4 . .	. . . . .	. . . .	. .	R	F	. .	. . .	1624
Morris 8-HP Series "E"	4-2.24x3.54	29-4400	56.0	6.50	I	3	L	In	AL	C	89.0	46.2	4.50/17	abce	1-Ho	N	SP	U	Hs	4 Y	SB	5.28	Sp	R	N	H	N	993
Morris 10-HP Series "M"	4-2.50x3.54	37-4600	69.5	6.60	I	3	I	In	AL	C	94.0	50.0	5.00/16	abce	1-Ho	N	SP	U	Hs	4 Y	SB	5.28	Sp	R	N	H	N	Mono
Riley 2½ Litre	4-3.16x4.72	90- . . .	149.0	. . . .	. . .	3	I	In	AL	▼	119.0	52.2	6.00/16	abce	2-Do	N	SP	. .	. . . .	4 . .	. . . . .	4.11	tt	R	T	♦	Y	31365
Rolls-Royce Silver Wraith	6-3.50x4.50	. . . . .	260.0	6.40	I	7	F	In	AL	H	127.0	60.0	6.50/17	abcde	1-Dd	N	SP	U	Hs	4 Y	Hy	3.72	Sp	R	F	♦	Y	. . .
Rover 10-HP	4-2.61x3.94	. . . . .	84.7	6.20	I	3	I	In	Als	C	105.5	51.3	4.75/17	abc	1-Do	N	SP	U	Hs	4 Y	SB	4.88	tt	R	N	M	N	. . .
Rover 12-HP	4-2.71x3.94	. . . . .	91.2	6.20	I	3	I	In	Als	C	112.0	53.5	5.25/17	abc	1-Do	N	SP	U	Hs	4 Y	SB	4.88	tt	R	N	M	N	. . .
Rover 14-HP	6-2.50x3.94	. . . . .	115.9	6.50	I	4	I	In	Als	C	115.0	53.7	5.50/17	abc	1-Do	N	SP	U	Hs	4 Y	SB	4.88	tt	R	N	M	N	. . .
Rover 16-HP	6-2.65x3.94	. . . . .	130.9	6.50	I	4	I	In	Als	C	115.0	53.7	5.50/17	abc	-Do	N	SP	U	Hs	4 Y	SB	4.70	tt	R	N	M	N	. . .
Singer 9-Roadster	4-2.38x3.74	36-5000	65.5	6.90	I	3	I	In	AL	C	91.0	45.0	5.00/16	abcde	1-Do	N	SP	U	Hs	3 Y	SB	5.43	Sp	R	N	M	N	945
Singer Super 10-Saloon	4-2.49x3.74	38-4800	93.0	7.00	I	3	I	In	AL	C	95.0	48.0	5.25/16	abce	1-Do	N	SP	U	Hs	4 Y	SB	5.43	Sp	R	N	H	N	1148
Singer Super 12-Saloon	4-2.67x4.13	61-4800	91.4	7.00	I	3	I	In	AL	C	103.0	52.0	5.50/16	abce	1-Ho	. . .	SP	U	Hs	4 Y	SB	4.00	Sp	R	N	M	N	1280
Standard 8-HP	4-2.23x3.94	28-4000	61.5	6.70	I	3	L	In	AL	C	83.0	46.5	4.75/16	abc	1-Do	N	SP	U	Hs	4 Y	SB	5.14	Sp	R	F	M	N	1664
Standard 12-HP	4-2.73x4.17	44-4000	97.1	6.50	I	3	L	In	AL	C	100.0	54.5	5.50/16	abcd	1-Do	N	SP	U	Hs	4 Y	SB	4.88	Sp	R	F	M	N	1582
Standard 14-HP	4-2.87x4.17	50-3750	108.3	6.50	I	3	L	In	AL	C	100.0	54.5	5.50/16	abcd	1-Do	N	SP	U	Hs	4 Y	SB	4.57	Sp	R	F	M	N	1582
Standard Triumph-1800	4-2.87x4.17	62-4400	108.3	6.70	I	. .	I	In	AL	C	100.0	54.7	5.75/16	abcd	1-Do	N	SP	U	Hs	4 Y	SB	4.55	Sp	R	F	♦	N	. . .
Sunbeam-Talbot Ten	4-2.48x3.74	39-4400	72.2	6.80	I	3	L	In	AL	C	94.0	48.5	5.25/16	abce	1-Do	N	SP	U	Hs	4 Y	SB	5.22	Sp	R	N	M	N	1442
Sunbeam-Talbot 2 Litre	4-2.95x4.33	56-3800	118.0	6.40	I	3	L	In	AL	C	97.7	48.5	5.25/16	abce	1-Do	N	SP	U	Hs	4 . .	SB	4.44	Sp	R	N	M	N	1736
Triumph Saloon	4-2.87x4.17	68-4500	108.3	7.50	. . .	. .	I	. . .	. . .	. . .	108.0	54.7	5.75/16	. . . . .	. . . . .	. .	. . .	. .	. . . .	4 . .	. . . . .	. . . .	. .	R	F	. . .	. . .	26324
Triumph Roadster	4-2.87x4.17	68-4500	108.3	7.50	. . .	. .	I	. . .	. . .	. . .	100.0	54.7	5.75/16	. . . . .	. . . . .	. .	. . .	. .	. . . .	4 . .	. . . . .	. . . .	. .	R	F	. . .	. . .	23744
Vauxhall HIY	4-2.50x3.74	31-3600	73.4	6.50	I	3	I	In	AL	C	97.7	49.6	5.00/16	abce	1-Do	N	SP	U	Hs	3 Y	SB	5.14	Sp	R	T	H	N	2100
Vauxhall HIX	4-2.73x3.74	35-3600	88.0	6.80	I	3	I	In	AL	C	97.7	49.6	5.00/16	abce	1-Do	N	SP	U	Hs	3 Y	SB	4.62	Sp	R	T	H	N	2100
Vauxhall JIB	6-2.42x3.94	47-3600	108.8	6.75	I	4	I	In	AL	C	105.0	51.0	5.50/16	abce	1-Do	N	SP	U	Hs	3 Y	SB	4.62	Sp	R	T	H	N	2500
Wolseley 8-HP	4-2.24x3.54	. . . . .	56.0	7.30	I	3	I	In	Ww	G	89.0	46.2	4.50/17	abce	1-Do	N	SP	U	Hs	4 Y	SB	5.28	Sp	R	N	H	N	19324
Wolseley 10-HP	4-2.50x3.54	. . . . .	69.5	6.60	I	3	I	In	Ww	C	90.0	48.0	5.50/16	abce	1-Up	N	SP	U	Hs	4 Y	SB	5.28	Sp	R	N	H	N	22284
Wolseley 12-HP	4-2.73x4.01	. . . . .	94.4	6.40	I	3	I	In	Ww	C	98.0	56.0	5.75/16	abce	1-Do	N	SP	U	Hs	4 Y	SB	5.33	Sp	R	N	H	N	29694
Wolseley 14-HP	6-2.42x4.01	. . . . .	110.9	6.40	I	4	I	In	Ww	C	104.5	56.0	6.00/16	abce	2-Do	N	SP	U	Hs	4 Y	SB	5.33	Sp	R	N	H	N	30244
Wolseley 18-HP	6-2.73x4.01	. . . . .	141.6	6.50	I	4	I	In	Ww	C	104.5	56.7	6.25/16	abce	2-Do	N	SP	U	Hs	4 Y	SB	4.80	Sp	R	N	H	N	31824

ABBREVIATIONS

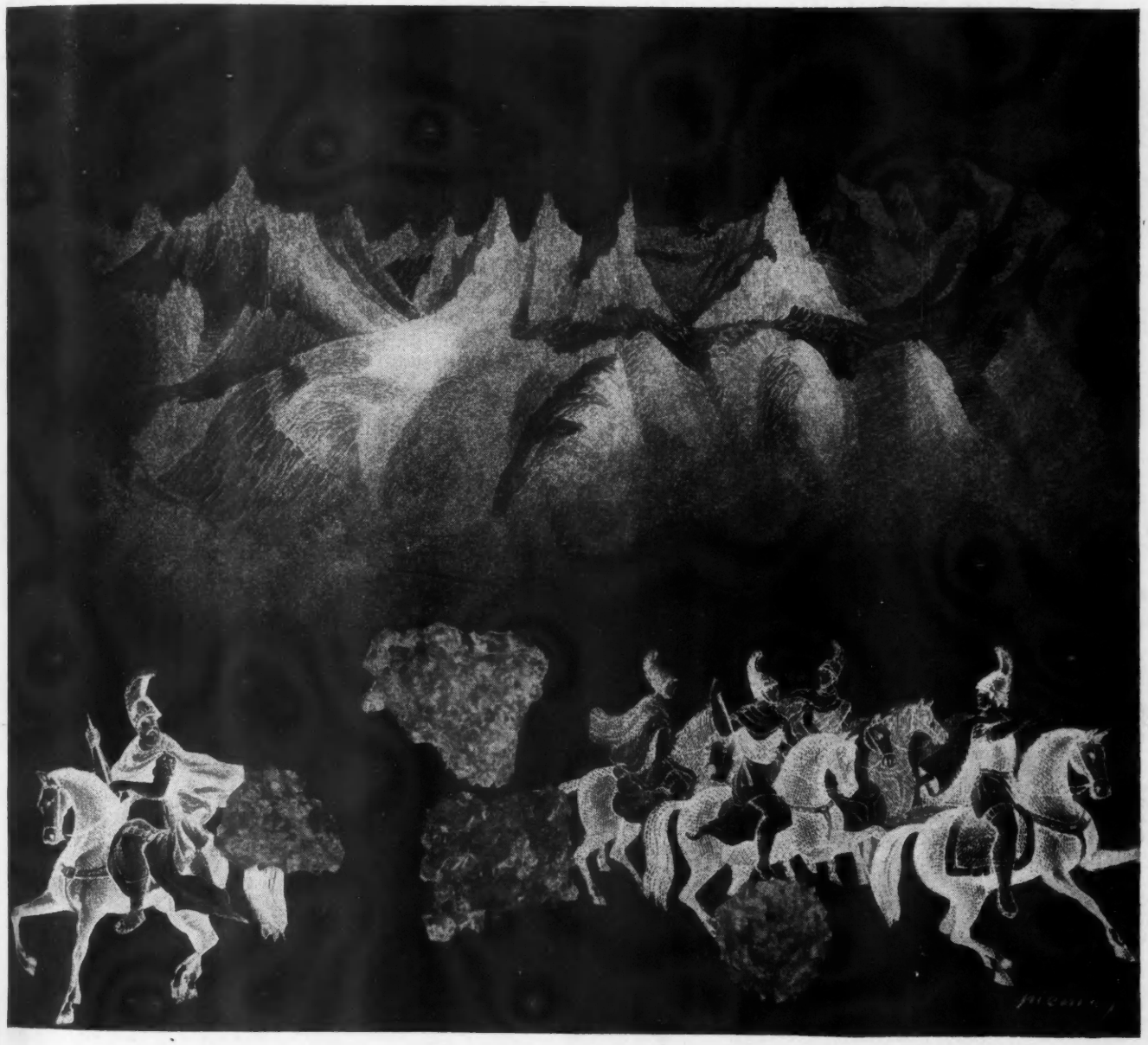
◇—Also others
♣—Car weight only
♦—Hydraulic on front, mechanical on rear
♦♦—Hand or preselective (Epicyclic) shift, optional
▼—Twin camshafts driven through helical gears by a single chain
■—Curb weight
▲—Torque converter
a—Main bearings
A—All four wheels
AL—Aluminum alloy
Als—Aluminum alloy with steel struts
Ash—Aluminum alloy with steel shirt
b—Camshaft
c—Connecting rod bearings
C—Chain
Ca—Completely automatic
d—Piston pins
Dd—Dual downdraft
Do—Downdraft
DR—Double reduction
e—Chain or timing gears
F—Front wheels
F—Valves in Head and Side (F-Head)
G—Spur gear
H—Helical gear
H—Hydraulic (brakes or clutches)
Ho—Horizontal
Hs—Handshift
Hy—Hyphoid
I—In line (cylinders)
I—In head (valves)
In—Integral with cylinders
L—At side (L-head)
M—Mechanical brakes
Mono—Mono construction
N—No or none
O—Horizontally opposed (cylinders)
R—Rear wheels
S—Separate from engine
Sa—Semi-automatic
SB—Spiral bevel
Se—Separate casting from engine
SH—Single plate with hydraulic actuation
Sp—Springs
SP—Single plate, dry
T—Torsion bar, front wheels only
Ta—Torque arm
tt—Torque tube
U—Unit with engine
Up—Updraft
V—"V" type
Wo—Worm drive
Ww—Wire wound
Y—Yes

HANNIBAL'S FROZEN ASSET

The Romans smugly thought the icy barrier of the Alps impassable. But Hannibal turned the paralyzing cold to his advantage. He had water poured into the crevices of road-blocking boulders. The expansion of the freezing water "made little ones out of big ones"—and another road led to Rome.

Low temperature, which worked to Hannibal's advantage, is a distinct disadvantage to operating machinery. Under low temperature conditions, some steels that may perform perfectly at ordinary temperatures, develop unsuspected weakness. There is always danger of a parts failure under such conditions.

One way to assure good performance at low temperatures is to specify molybdenum steels. Good hardenability plus freedom from temper brittleness give them good low temperature impact strength. They are a precaution it pays not to ignore. Practical working data are available on request.



MOLYBDIC OXIDE—BRIQUETTED OR CANNED • FERROMOLYBDENUM • "CALCIUM MOLYBDATE"
CLIMAX FURNISHES AUTHORITATIVE ENGINEERING DATA ON MOLYBDENUM APPLICATIONS.

Climax Molybdenum Company
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MOLY

BRITISH CIVIL AIRCRAFT

Courtesy of The Aeroplane (London)

MAKE AND MODEL	ENGINE			Dimensions and Weights				Performance				Loads			Range		
	Number Used	Make and Model	Maximum Brake Horsepower	Span (Ft. In.)	Length (Ft. In.)	Gross Weight (Lb.)	Max. Wing Loading (Lb. per Sq. Ft.)	Maximum Speed (mph) at Altitude (Ft.)	Cruising Speed (mph)	At Per Cent Max. Power	At Altitude	Total Payload (Lb.)	No. of Passengers	Freight and Baggage (Lb.)	Miles	Speed (mph)	At Altitude (Ft.)
Airspeed Consul	2	A-S Cheetah X	410	53′ 4″	35′ 4″	8850	23.7	190– 4800	140	47	10000	1230	6	210	490	140	10000
Airspeed Ambassador I	2	Bristol Centaurus	2600	115′ 0″	80′ 3″	45000	37.5	355–16500	280	57	20000	9400	40	2600	1000	240	20000
Airspeed Ambassador II	4	Napier Naiad	1580	115′ 0″	80′ 3″	47500	39.5	.....	302	50	20000	9615	40	2815	1240	302	20000
Armstrong-Whitworth 55	4	A-S Mamba	1200	92′ 0″	68′ 0″	36500	37.1	360–20000	320	80	20000	7500	24	3420	1035	276	20000
Auster Autocrat	1	Blkt. Cirrus II	100	36′ 0″	23′ 5″	1850	10.0	120– 1000	100	....	1000	608	2	98	320	95	2000
Auster Arrow	1	Cont. C75	75	36′ 0″	22′ 11″	1450	7.9	100– 1000	90	....	1000	414	1	50	330	83	2000
Avro 19	2	A-S Cheetah XV	420	56′ 6″	42′ 3″	10400	23.6	190– 5000	150	....	5000	1560	8	200	356	155	3000
Avro Lancastrian	4	R-R Merlin T24	1280	102′ 0″	76′ 10″	65000	50.1	315–12000	280	....	11000	10650	13	8440	2730	210	15000
Avro York	4	R-R Merlin T24	1280	102′ 0″	78′ 0″	71000	54.8	315–10800	260	....	10500	7000	21	2380	2600	210	10000
Avro Tudor IV	4	R-R Merlin 600	1770	120′ 0″	85′ 6″	80000	56.3	325–19500	280	....	15000	7723	32	2150	3700	240	20000
Bristol Wayfarer IIA	2	Bristol Hercules 632	1795	98′ 0″	68′ 4″	37000	26.3	224– 5000	153	50	5000	4475	24	395	950	153	5000
Bristol Brabazon I	8	Bristol Centaurus	2400	230′ 0″	177′ 0″	285000	54.0	.....	.....	....	.....	.....	.....	.....	5000	250	25000
Chrislea 3 Ace	1	Lycoming	130	36′ 0″	20′ 6″	1950	11.0	123-SL	111	85	2000	730	3	50	280	111	2000
Cunliffe Concordia	2	Alvis LE4M	525	57′ 0″	44′ 2″	11000	25.3	223– 5000	190	60	7000	1900	9	370	980	190	7000
DeHaviland 104 Dove	2	D.H. 70	330	57′ 0″	39′ 4″	8500	25.4	222– 5800	200	82	8500	1733	8	373	500	200	8500
General Aircraft X	2	Bristol Mercury 31	965	110′ 0″	68′ 1″	47000	28.4	190– 6000	164	62	6000	27670	....	18170	1100	130	6000
General Aircraft 60	4	Bristol Hercules 260	1950	162′ 0″	99′ 0″	87300	30.0	238– 16000	175	55	8500	21620	90	7320	520	175	8500
Handley Page Halton	4	Bristol Hercules 100	1800	103′ 8″	73′ 7″	65000	51.0	320–15000	270	....	15000	10500	Va	rious	1810	210	15000
Handley Page Hermes I	4	Bristol Hercules 101	1800	113′ 0″	82′ 2″	75000	53.3	355–22700	290	80	14000	15100	50	6100	1200	203	10000
Handley Page Hermes IV	4	Bristol Hercules 263	2040	113′ 0″	95′ 0″	82000	58.2	350–20000	269	87	10000	17000	63	6270	1400	271	25000
Handley Page Hermes V	4	Bristol Theseus	2290	113′ 0″	95′ 0″	84000	59.6	350–15000	338	....	25000	17100	63	6370	1670	297	30000
Miles Messenger	1	Blkbn. Cirrus Major	155	36′ 2″	24′ 0″	2400	12.5	134-SL	122	....	SL	808	3	265	460	122	SL
Miles Gemini	2	Blkbn. Cirrus Minor	100	36′ 2″	22′ 3″	3000	15.7	150-SL	135	....	SL	756	3	.....	820	130	SL
Miles Aerovan	2	Blkbn. Cirrus Major	155	50′ 0″	36′ 0″	5400	14.9	127-SL	112	....	SL	2240	....	2240	400	100	SL
Miles Marathon	4	D.H. 71	330	65′ 0″	52′ 1″	16500	33.0	230– 6300	175	50	10000	3800	18	540	500	175	10000
Miles M69	2	A-S Mamba	1010	65′ 0″	52′ 1″	.....	.....	.....	260	....	10000	3800	18	540	770	280	10000
Percival Proctor V	1	D.H. 61	208	39′ 6″	28′ 2″	3500	17.3	157-SL	135	68	SL	556	3	48	500	148	6000
Percival Merganser	2	D.H. 51	296	47′ 9″	38′ 11″	6700	.....	193– 6800	160	68	6000	2110	6	110	800	160	6000
Portsmouth Major	2	Blkbn. Cirrus Major	155	42′ 0″	26′ 3″	3950	15.5	164– 5000	136	65	5000	1000	5	150	500	136	5000
Portsmouth Minor	2	Blkbn. Cirrus Minor	100	42′ 0″	26′ 3″	3450	13.5	138– 5000	113	65	5000	800	4	120	500	113	5000
Portsmouth Senior	2	Blkbn. Cirrus Major	155	42′ 0″	26′ 3″	3950	15.5	150– 5000	123	65	5000	1150	5	300	500	123	5000
Saunders-Roe 45	...	.....	5000	220′ 0″	146′ 0″	290000	.....	.....	300+	....	.....	.....	.....	.....	5000	.....	.....
Short Solent	4	Bristol Hercules 637	1790	112′ 9″	88′ 7″	75000	44.5	273– 7500	206	65	5000	13220	24	8900	1600	213	10000
Short Sandringham I	4	Bristol Pegasus 38	980	112′ 9″	86′ 3″	58000	33.2	215– 3000	189	86	9000	7820	21	4250	1520	174	5000
Short Sandringham II	4	P&W R/1830	1200	112′ 9″	86′ 3″	60000	35.5	237– 5000	160	47	10000	9915	45	2265	1890	174	5000
Short Shetland	4	Bristol Centaurus	2440	150′ 4″	107′ 0″	125000	47.5	263– 1750	242	76	10000	8500	34	2720	3820	184	8000
Short Sealand	2	D.H. Gipsy Queen 71	330	59′ 0″	42′ 0″	8700	24.9	188– 6200	174	88	6600	1000	5	150	485	127	5000
Vickers Viking IB	2	Bristol Hercules 634	1765	89′ 3″	65′ 2″	34000	38.5	296– 8000	263	83	10000	7860	24	3350	710	210	10000

ABBREVIATIONS

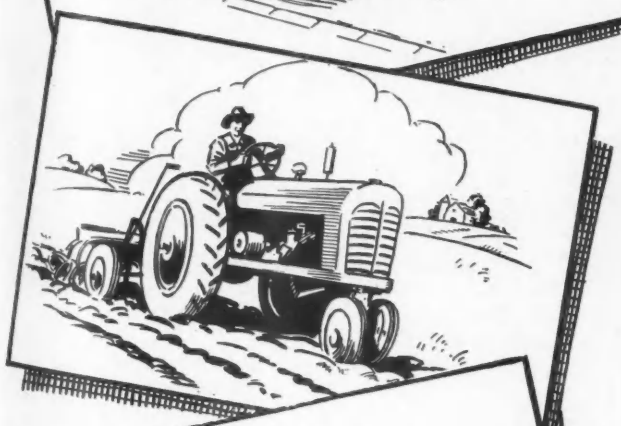
A-S—Armstrong-Siddely Motors, Ltd.
Blkbn—Blackburn Aircraft, Ltd.
Cont—Continental Motors, Inc.
D.H.—DeHaviland Engine Co., Ltd.
P&W—Pratt & Whitney Twin Wasp
R-R—Rolls-Royce, Ltd.
SL—Sea level

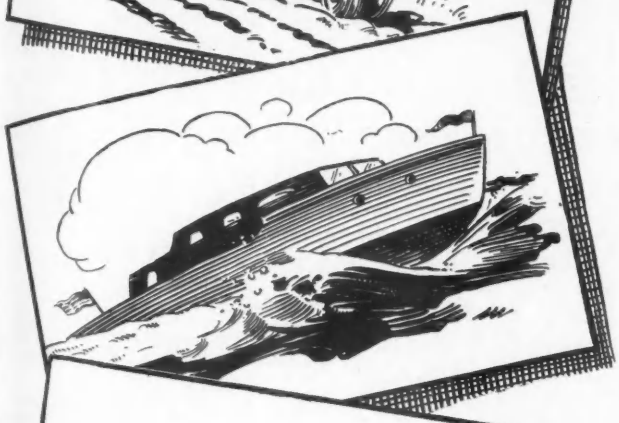
A New Light Airplane

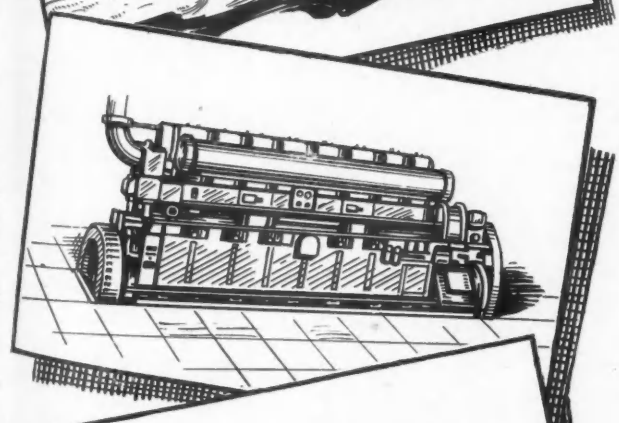
SCOTTISH AVIATION announces a new aircraft—the Prestwick Pioneer — which, the company states, has been designed primarily for operation in areas where, due to geographical considerations and low population density, airfield facilities are not available or are very restricted.

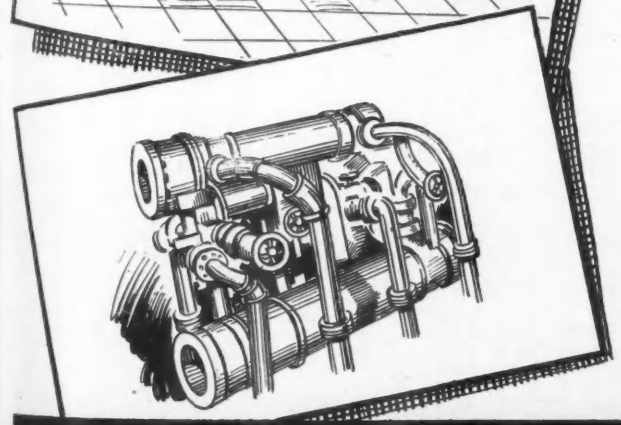
With accommodation for a pilot and three passengers and their baggage, the Pioneer is radio equipped and can be supplied as landplane, floatplane or skiplane. It can be adapted for a variety of duties—as a four-seat passenger aircraft, as an air ambulance, for aerial photography, for dual control training, for crop dusting, and as a pick-up mail plane for operation in remote areas. It will be powered by a de Havilland Gipsy Queen 34 engine, driving a variable pitch propeller.

The landplane model, it is estimated, will cruise at 110 mph at 5000 ft., will have a top speed of 126 mph and a landing speed of 33 mph. Range is given as 500 miles and service ceiling 16,000 ft. The take-off ground run will be 95 yards and landing ground run 50 yards. Its overall length is 34 ft 9 in., span 50 ft 6 in., height (tail up) 12 ft 7 in., height (tail down) 9 ft 10 in. All-up weight will be 3630 lb.









Four For All!

PERMATEX offers you these four top-notch, anti-corrosive, assembling compounds as the answer to your production and maintenance problems! Each one has valuable characteristics that make it best for certain types of assemblies!

Form-A-Gasket No. 1, a paste...sets hard.
Form-A-Gasket No. 2, a paste...sets pliable.
Aviation Form-A-Gasket, a liquid...sets tacky.
Pipe Joint Compound, a liquid...sets flexible.

All of these Permatex assembling compounds make pressure - tight unions . . . leak - proof to gasoline, kerosene, fuel oil, diesel oil, hot or cold lubricants, hot or cold water, salt water, illuminating gas, glycerine and numerous other liquids and gases!

Descriptive literature on request.

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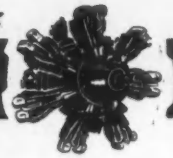
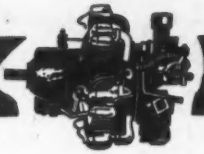


BRITISH AIRCRAFT ENGINES



ENGINE MAKE AND MODEL	CYLINDER DATA											RATINGS									Propeller Drive Ratio	Weight (Lb.)		Carburetor		Ignition System—Make	Starting		Installation Dimensions (Overall—Ins.)			Height above Engine Bed (In.)	Diameter Mounting Ring or Distance Between Bearers
									No. of Valves per Cylinder			Maximum (Except Take-off)			Take-off		Cruising																
	Arrangement	Cooling Medium	Number of Cylinders Bore and Stroke (In.)	Total Piston Displacement (Cu. In.)	Compression Ratio	B.M.E.P. at Maximum Hp. (Lb. per Sq. In.)	Blower Ratio	Cylinder Material	Intake	Exhaust	Valve Arrangement	Horsepower	R.P.M.	At Sea Level or Altitude (Ft.)	Horsepower	R.P.M.	Horsepower	R.P.M.	Octane Rating of Fuel Required			Engine—Dry Without Hub or Starter	Per Maximum Hp.	Number Used and Make	Type		Make	Method	Length	Height or O.D.	Width		
Alvis Ltd.....Leonides LE1M	Rad	Air	9–4.80x4.41	718.5	6.80	193	6.50	4	1	1	I	525	3000	5000	505	3000	400	2800	87/100	.500	747	1.42	1-Hob	PI	BTH	Rot	EH	52.8	41.3	.....	.....	18.7
Alvis Ltd.....Leonides LE2M	Rad	Air	9–4.80x4.41	718.5	6.80	193	6.50	4	1	1	I	525	3000	5000	505	3000	400	2800	87/100	.625	747	1.42	1-Hob	PI	BTH	Rot	EH	54.2	41.3	.....	.....	18.7
Armstrong Sid.....Cheetah XV	Rad	Air	7–5.25x5.50	835	6.35	158	6.52	2	1	1	I	405	2425	4000	420	2550	305*	2100	87	.732	805	1.98	1-Hob	.....	R-B	Rot	EH	49.6	47.7	.....	.....	25
Armstrong Sid.....Cheetah XXV	Rad	Air	7–5.25x5.50	835	6.35	158	6.52	2	1	1	I	405	2425	4000	475	2700	305*	2100	87	.732	805	1.98	1-Hob	.....	R-B	Rot	EH	49.6	47.7	.....	.....	25
Blackburn.....Minor II	IL	Air	4–3.94x5.00	243	6.25	125	.....	4	1	1	I	100	2600	SL	90	2300	74	2300	73	Dir	234	2.34	1-Zen	FL	BTH	Rot	EM	39.9	25.6	17.9	8.00	15.2*
Blackburn.....Major II	IL	Air	4–4.72x5.50	386	5.80	126	.....	4	1	1	I	150	2450	SL	138	2200	110	2200	70	Dir	327	2.10	1-Hob	FL	BTH	Rot	EM	43.15	31.4	17.7	8.50	15.2*
Blackburn.....Major III	IL	Air	4–4.72x5.50	386	6.50	130	.....	4	1	1	I	155	2450	SL	145	2200	115	2200	80	Dir	333	2.14	1-Hob	FL	BTH	Rot	EM	43.15	31.4	17.7	8.50	15.2*
Bristol.....Hercules 101	Rad	Air	14–5.75x6.50	2360	7.00	216	6.68	9	3	2	S	1800	2800	9000	1675	2800	1215	2400	100/130	.440	2045	1.13	1-Hob	PI	Sim	Rot	EM	40.4	52.0	.....	.....	.....
	2 Speed Blower						8.35					1625	2800	19500			1125	2400														
Bristol.....Hercules 120	Rad	Air	14–5.57x6.50	2360	7.00	216	5.66	9	3	2	S	1800	2800	6000	1715	2800	1230	2400	100/130	.440	2025	1.10	1-Hob	PI	Sim	Rot	EM	40.95	52.0	.....	.....	.....
	2 Speed Blower						8.35					1464	2800	23000			1090	2400														
Bristol....Hercules 134, 630-639	Rad	Air	14–5.75x6.50	2360	7.00	215	6.38	9	3	2	S	1795	2800	7250	1690	2800	1330	2400	100/130	.440	1905	1.06	1-Hob	PI	Sim	Rot	EM	40.38	52.0	.....	.....	.....
Bristol.....Hercules 230-730	Rad	Air	14–5.75x6.50	2360	7.00	246	6.38	9	3	2	S	2055	2800	3500	2000	2800	1305	2400	100/130	.440	2060	1.00	1-Hob	PI	Sim	Rot	EM	41.12	52.0	.....	.....	.....
Bristol.....Centaurus XVIII	Rad	Air	18–5.75x7.00	3270	7.20	255	5.93	9	.....	.....	S	2840	2700	750	2825	2700	1790	2400	100/130	.440	2870	1.00	1-Hob	PI	BTH	Rot‡	EM	47.43	55.3	.....	.....	.....
	2 Speed Blower						7.76					2610	2700	14250			1640	2400														
Bristol.....Centaurus 57	Rad	Air	18–5.75x7.00	3270	7.20	255	5.93	9	.....	.....	S	2840	2700	750	2825	2700	1790	2400	100/130	.400◦	2780	.978	1-Hob	PI	BTH	Rot‡	EM	47.43	55.3	.....	.....	.....
	2 Speed Blower						7.76					2610	2700	14250			1640	2400														
Bristol.....Centaurus 58	Rad	Air	18–5.75x7.00	3270	7.20	255	5.93	9	.....	.....	S	2840	2700	750	2825	2700	1790	2400	100/130	.440	2790	.982	1-Hob	PI	BTH	Rot‡	EM	47.43	55.3	.....	.....	.....
	2 Speed Blower						7.76					2610	2700	14250			1640	2400														
Bristol.....Centaurus 130, 630	Rad	Air	18–5.75x7.00	3270	7.20	269	6.25	9	.....	.....	S	3000	2700	SL	3000	2700	1805	2400	100/130	.400	2980	.993	1-Hob	PI	Sim▲	Rot	EM	53.30	55.3	.....	.....	.....
DeHavilland....Gipsy Major 10	IL	Air	4–4.64x5.51	373	6.00	121	.....	4	1	1	I	145	2550	SL	145	2550	128	2300	77	Dir	312	2.15	1-Hob	FL	BTH	Rot	EH	45.05*	30.6	20.0	9.00	21.2
DeHavilland....Gipsy Major 30	IL	Air	4–4.73x5.91	414	6.50	123	.....	4	1	1	I	160	2500	SL	160	2500	133	2200	87	Dir	340	2.12	1-Hob	FL	R-B	Rot	EM	43.00*	32.2	17.6	11.0	21.2
DeHavilland....Gipsy Major 50	IL	Air	4–4.73x5.91	414	6.50	143	11.16	4	1	1	I	180	2400	7000	197	2500	146	2100	87	Dir	410	2.27	1-Hob	PI	R-B	Rot	EM	49.70*	32.2	17.6	11.0	21.2
DeHavilland....Gipsy Queen 30	IL	Air	6–4.73x5.91	621	6.50	128	.....	4	1	1	I	250	2500	SL	250	2500	207	2200	87	Dir	510	2.04	1-Hob	FL	R-B	Rot	EH	56.33*	33.0	20.2	11.8	25.2
DeHavilland....Gipsy Queen 50	IL	Air	6–4.73x5.91	621	6.50	144	11.16	4	1	1	I	270	2400	7000	295	2500	220	2100	87	Dir	560	2.07	1-Hob	PI	R-B	Rot	EM	64.25*	33.0	19.6	11.8	25.2
DeHavilland....Gipsy Queen 70	IL	Air	6–4.73x5.91	621	6.50	144	11.22	4	1	1	I	305	2700	6000	330	2800	250	2400	100	.711	660	2.16	1-Hob	PI	R-B	Rot	EM	69.50*	33.2	19.6	12.0	18.9
Monaco.....100 L.P.	Hor	Air	4–4.37x3.62	218	6.00	130	.....	9	1	1	I	100	2800	SL	100	2800	80	2350	70	Dir	230	2.30	1-Hob	FL	BTH	Rot	EM	31.62	27.8	32.3	17.5	20.0
Napier.....VA	4H	Liq	24–5.00x4.75	2238	7.00	241	4.68	7	3	2	S	2615	3850	2500	2565	3850	1675	3250	100	.252◦	2490	.952	1-Hob	PI	BTH	Cof	Car	82.2	46.0	40.0	31.3	12.2
	.....	.....	.....	.....	.....	.....	5.83	.....	.....	.....	.....	2315	3850	13750	.....	.....	1440	3250	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Napier.....VII	4H	Liq	24–5.00x4.75	2238	7.00	281	4.68	7	3	2	S	3055	3850	2250	3000†	3850	1630	3250	100	.252◦	2560	.837	1-Hob	PI	BTH	Cof	Car	83.0	47.2	40.0	31.3	12.2
	.....	.....	.....	.....	.....	.....	5.83	.....	.....	.....	.....	2820	3850	12500	.....	.....	1400	3250	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rolls-Royce.....Merlin 500	V-60	Liq	12–5.40x6.00	1649	6.00	262	8.15 (a)	2	2	2	OH	1635	3000	2250	1610	3000	1220	2850	100/130	.420	1450	.886	1-SU	FL	BTH	Rot	EM	78.87	43.5	29.8	22.2	33.4
Rolls-Royce.....Merlin 66	V-60	Liq	12–5.40x6.00	1649	6.00	273	5.79 (b)	2	2	2	OH	1705	3000	5750	1315	3000	1025	2650	100/130	.477	1645	.984	1-BS	PI	BTH	Rot	EM	85.82	43.3	29.8	23.9	33.4
Rolls-Royce.....Merlin 140	V-60	Liq	12–5.40x6.00	1649	6.00	285	5.79 (b)	2	2	2	OH	1780	3000	4500	1725	3000	1200	2650	100/130	.510‡	1780	1.00	1-SU	PI	BTH	Rot	EM	86.85	43.2	31.4	23.9	33.4
Rolls-Royce.....Merlin 620	V-60	Liq	12–5.40x6.00	1649	6.00	284	5.79 (b)	2	2	2	OH	1770	3000	4000	1725	3000	1160	2650	100/130	.470	1740	.983	1-SU	PI	BTH	Rot	EM	85.85	43.2	31.4	23.9	33.4
Rolls-Royce.....Griffon 12	V-60	Liq	12–6.00x6.60	2239	6.00	234	7.85 (c)	2	2	2	OH	1815	2750	SL	1815	2750	1320	2400	100/130	.451	1790	.988	1-SU	FL	BTH	Cof	CA	79.00	43.1	29.5	25.6	34.5
Rolls-Royce.....Griffon 57	V-60	Liq	12–6.00x6.60	2239	6.00	266	6.61 (d)	2	2	2	OH	2060	2750	2250	2500	2750	1420	2400	100/130	.440‡	1980	.961	1-Own	PI	BTH	Cof	CA	84.72	43.3	29.5	29.0	34.5
Rolls-Royce.....Griffon 74	V-60	Liq	12–6.00x6.60	2239	6.00	264	5.16 (e)	2	2	2	OH	2045	2750	SL	2020	2750	1310	2400	100/130	.451	2100	1.02	1-Own	PI	BTH	Cof	CA	89.37	45.8	29.5	27.3	34.5

ABBREVIATIONS

◦—Or .274:1 ratio
•—Alternate centers available
&—Or Plessey Coffman cartridge
†—With Water-Methanal injection
‡—Contra-Rotating

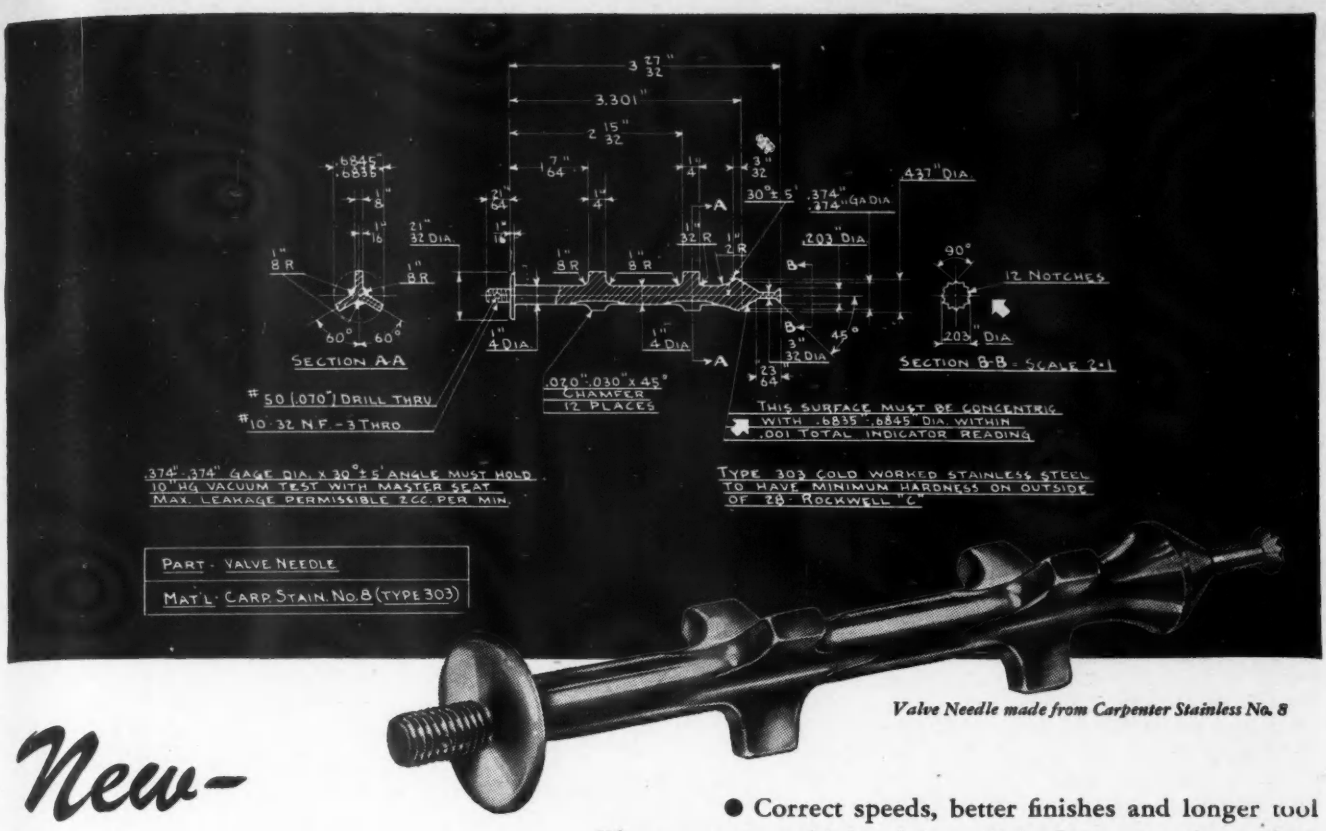
*—From propeller center line to rear of engine
▲—Simms or BTH
2—Alum. with steel liner
4—Steel with Alum. alloy head
7—Alum. alloy block with steel sleeve
9—Alum. alloy
4H—Four banks of six cylinders in horisontal

"H" formation
(a)—Also 9.49 Blower Ratio
(b)—Also 7.06 Blower Ratio
(c)—Also 10.68 Blower Ratio
(d)—Also 7.69 Blower Ratio
(e)—Also 6.79 Blower Ratio
BTH—British Thomas-Houston Co.

BS—Bendix or Stromberg
CA—Compressed air
Car—Cartridge
Cof—Coffman
Dir—Direct
EH—Electric motor or hand crank
EM—Electric motor

FL—Float
Hob—H. M. Hobson Components, Ltd.
Hor—Horisontal
I—In head with push rods and rocker arms (valves)
IL—In line (cyl. arrangement)
OH—Overhead (valves)

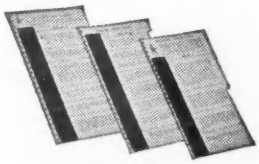
PI—Pressure injection
Rot—Rotax, Ltd.
R-B—Rotax or BTH
S—Sleeve
Sim—Simms Motor Units, Ltd.
SL—Sea level
Zen—Zenith



Valve Needle made from Carpenter Stainless No. 8

New-

USEFUL INFORMATION *to cut costs where you* MACHINE STAINLESS STEEL!



● Correct speeds, better finishes and longer tool life on your machining jobs will lead you to a lower cost on each unit made from Stainless bar stock.

For the lower unit costs that are so important now, ask your nearby Carpenter representative for your copy of the new Carpenter "NOTEBOOK on Machining Stainless Steels". Just published, this 116-page NOTEBOOK is packed full of useful shop hints and machining information . . . much of it never before printed. For example—

COMPLETE CHECK CHARTS in each section list common trouble spots, and help you find the best cure in each case.

SPEEDS AND FEEDS recommended for various types of Stainless are given in the useful table you'll find in each chapter.

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STAINLESS STEELS

PROMPT SHIPMENT FROM CONVENIENTLY LOCATED STOCKS

Buffalo	Cleveland	Hartford	Philadelphia
Chicago	Dayton	Indianapolis	Providence
Cincinnati	Detroit	New York	St. Louis

SEE THE CLASSIFIED SECTION OF YOUR TELEPHONE DIRECTORY

NEW Production and Plant EQUIPMENT

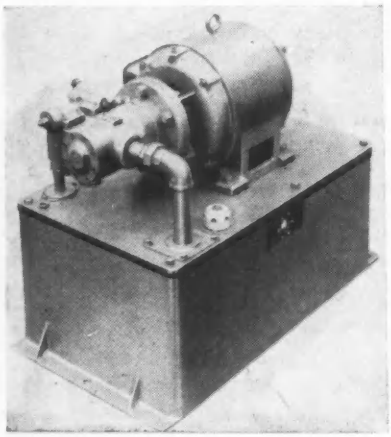
Hammond Machinery Builders, Inc., 1600 Douglas Ave., Kalamazoo 54, Mich., have added this ROL model to their line of polishing and buffing lathes. It has an overhanging base to provide liberal working space around the wheel, will accommodate a 2- or 3-hp motor, and is multi-V-belt driven from motor mounted inside the base. Any single spindle speed can be had.

VICKERS, INC., 1428 Oakman Blvd., Detroit 32, Mich., has expanded its line of hydraulic power units.

For installation convenience of hydraulic equipment on industrial machinery, Vickers power units are available in standard sizes and types of 20-, 30- and 60-gal tank capacities equipped with Vickers constant-delivery vane-type pumps. Three types of pumps are available in a wide range of capacities—single and two pressure for 1000 psi, and two stage for 2000 psi continuous-duty operating pressures.

The power unit shown is equipped with a Vickers two-stage pump, and relief valve. All intermediary piping between pump, oil reservoir, etc., is provided. Pumps are arranged to accommodate electric motors of users selection.

The Vickers hydraulic power unit is a self-contained unit for hydraulic systems. It combines the oil reservoir, pump, suction filter, combination filler cap and air cleaner, oil level gauge and other accessories for a complete power source for hydraulic systems.

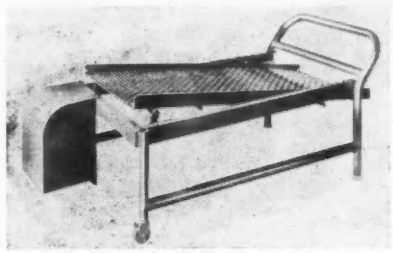


Power unit equipped with Vickers two-stage pump and relief valve

A PORTABLE motor - driven shaker screen for use with deburring and finishing barrels is a new product of Almco, Inc., 231 E. Clark St., Albert Lea, Minn. This unit separates the finished work from the tumbling medium, eliminating all hand screening and sorting.

The screen is driven by a ½ hp or 1-3 hp motor, and vibrates in an elliptical path at 380 reciprocations per minute. Length of movement is adjustable from zero to ¾ in. to meet all requirements. Interchangeable wire screens are available in standard sizes from 3/64 in. to 2¼ in. openings, and are removed by pushing up and slipping out from between retaining lugs at each end of the frame.

One screening unit will normally serve 3 or 4 barrels. With casters at one end and a handle at the other, it is readily moved. Its over-all height of 24 in. (exclusive of the handle) permits this unit to be placed under Almco tumbling barrels to separate the load directly on discharge, and there is sufficient clearance beneath the screen for a mobile hoist pan to receive the screened material.

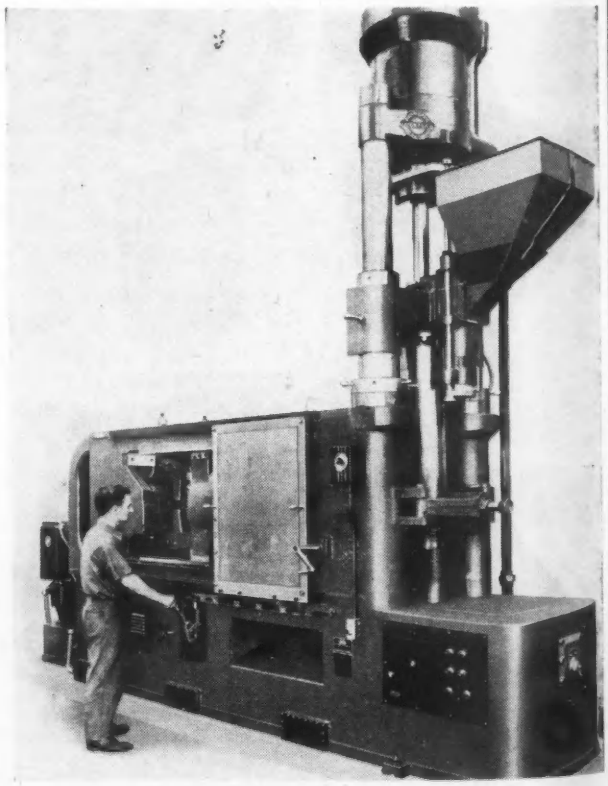


Almco shaker screen

INJECTION machines capable of molding plastic pieces up to 32 oz over a projected area of 150 sq in. are now being delivered by Lester-Phoenix, Inc., Cleveland, Ohio.

These huge machines are the largest models of the new Lester line and, although hundreds of smaller sizes have been made for both domestic and for-

(*Turn to page 249, please*)



Lester-Phoenix injection molding machine

Modern X-ray laboratories assure longer and better service from Sealed Power products

They helped us—
let us help you!

IN THE 36 years since the beginning of Sealed Power in 1911 leading automotive engineers have been most generous in giving us the benefit of their skill and experience. With their help Sealed Power engineers have made noteworthy contributions to piston ring and piston design. Sealed Power plants and staff have grown to be the finest in the industry. You are invited to use our facilities to help make your good engines even better.

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Get $4 for $3!

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PISTONS — CYLINDER SLEEVES

NEWS *of the* Industry

UAW-CIO Mapping Battle Strategy . . . Union Likely to Base Demands on Company Profits . . . High Automobile Ownership Cost Concerns Manufacturers . . . Production Title for 1946 Won by Chevrolet . . . Restrictive Labor Laws Likely in View of Union Attitude . . . Collective Bargaining Aspect of Welfare and Pension Plans Studied by NLRB . . . Michigan Investigates New Car Trafficking . . . Automobile Output Held Back by Shortage of Pig Iron and Steel . . . Lease Extension Obtained by Tucker to Complete Financing Program.

Wage Negotiations at GM and Ford Getting Underway

Preliminary strategy in the coming battle between the UAW-CIO and General Motors over wage increases and other economic demands was mapped by union leaders in a meeting held in Detroit March 6 and 7. Walter Reuther, union president and head of negotiations with GM, called in union representatives from 85 plants throughout the country.

According to Reuther, the issues discussed which will be presented include a wage increase of 23½ cents an hour, wage equalization, a social security plan, and a pension program. The latter two would be financed solely by the company. Formal demands will be made some time after March 19, the earliest date that the wage issue can be reopened. Since the contract stipulates that no walkout over wages can occur until after May 31 of this year, GM appears to be safe from a strike until that time at least. In fact, there is currently no serious belief in Detroit that strikes will be much of a problem in the automotive industry this year.

Corporate Profits May Again be Basis of Union Attack

In view of recent statements by Reuther and other union leaders, it now seems certain that the old question of corporate profits again will form the basis of attack by the union. The GM annual report will probably appear at about the time negotiations start, and with satisfactory profits reported for the fourth quarter of last year, it is practically certain that Reuther will repeat his ill-starred statistical attack of a year ago, charging that wages and other benefits can be granted without increasing prices. It is generally believed, however, that the union does not actually expect to get very far with its social security program, but will use it for bargaining purposes, and also as a wedge in order to achieve that goal some time in the future.

With the recent sharp upturn in prices, conditions are not so favorable as they were a month ago to compromise the wage issue at 10 to 15 cents an hour.

It now appears likely that contract negotiations between Ford Motor Co. and the UAW-CIO will get started some time in April, well ahead of the May date on which the 1946 contract expires. It is expected that in both the Ford and GM discussions the same type of delaying tactics will be followed as in the Chrysler negotiations, in which a second 30-day extension to late March was announced.

Cost of Car Ownership Worries Manufacturers

The recent increase of 30 per cent in automobile liability insurance rates in 27 states points up the increased cost of automobile ownership. Manufacturers are coming to realize more and more that, not only the high cost of the original purchase, but also the increasing cost of maintaining and operating an automobile, is a matter of serious concern to them. They point to the heavy tax burden now borne by the automobile owner in the way of excise, gasoline, license, and other forms of outside taxation that have increased steadily since World War I.

Another problem that may affect the automobile market eventually is the inconvenience and expense stemming from inadequate parking facilities in congested areas. Street systems that are inadequate to handle present volumes of traffic also discourage widespread car ownership. While all of these problems are outside the direct province of the automobile manufacturer, they are of prime importance to him. In fact, some spokesmen for the industry say that the situation now confronting the country in regard to the problems outlined above is similar to that of early days before all-year roads and highway systems were developed. It was only after extensive hard surface streets and highways became general throughout the country that the automobile industry was able to move into the mass market.

Chevrolet Battles to Top in 1946 Production Race with Ford

Final and official returns for automotive registrations in the U. S. for 1946 show that Chevrolet again has attained top position in both passenger cars and trucks. It had been conceded that Chevrolet held undisputed title to top place in trucks but a neck-and-neck race with Ford on passenger cars had been indicated by registration figures for the first 11 months of the year. When totals were tabulated March 1, it showed that Chevrolet squeaked through to take the lead by a narrow margin of 2,779. Had Ford been able to operate one or two more days during the year, the results could have been reversed. The margin in trucks was much larger, totaling 40,149. Production of cars and trucks at Chevrolet totaled 501,219 last year, 42,928 greater than any other make in the industry. The breakdown was 329,601 passenger cars and 171,618 trucks. The results of the tabulations show that there still is a production race, however, not one of sales. The real test will not come until a definite buyer's market appears. Chevrolet has led in national car sales in 11 out of the past 12 full production years, but lost out to Ford in 1945, which was not a full production year, due mainly to getting a later start and also to the GM strike which shut off production during the last six weeks of the year.

Labor Attitude Increases Chance for Corrective Laws

According to reliable Washington reports, the unyielding stand of labor leaders in testimony before congressional committees on proposed labor legislation makes more certain the passage of laws definitely restricting certain union activities. It is not expected that any new labor laws will be written before late April or May at the earliest, with the exception of a bill to outlaw or greatly restrict portal-to-portal claims.

NLRB Ponders Welfare and Pension Bargaining Status

Employers are watching with interest the outcome of deliberations now before NLRB to determine whether or not demands involving pensions and insurance plans are properly a subject of collective bargaining. NLRB has never specifically ruled on that ques-

(*Turn to page* 195, *please*)

● *Built by ACF-BRILL MOTORS CO.*

HELPING TO CONDITION AIR IN INTERCITY COACHES!

Helping to keep riders warm on cold days and cool on hot days is an important part of the job of SKF Bearings on Intercity Coaches. For SKF Bearings are in the air conditioning equipment—on fans, oil pumps, generators and air compressors. Other SKF Bearings are located in the transmission. And *all* of them give the smooth, continuous performance that's reflected not only in improved rider comfort, but in low maintenance costs, on-time schedules, long life, greater profits by the mile. These are advantages that bus buyers cannot afford to overlook. 6197

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PHILADELPHIA 32, PA.

Packard to Respect Supreme Court Decision

The Packard Motor Car Co. will respect to the letter the U. S. Supreme Court decision of March 10 that foremen are entitled to organize and bargain collectively under the National Labor Relations Act. George T. Christopher, president, said that the litigation concerned an act on the statute books at present, but that it seemed quite possible that remedial legislation might be enacted by the present Congress to "preserve the dignity, authority, and independence of these—Packard—and other foremen throughout the country." He pointed out that although the Supreme Court upheld the right of foremen to bargain collectively, many issues still remained to be settled at the bargaining table. One important issue still to be decided is whether the Supreme Court will recognize the right of foremen to join unions of production workers. This issue is involved in the attempt by the United Mine Workers, A. F. of L. to organize the mine foremen into the Mine Workers Union.

Business in Brief

Written by the Guaranty Trust Co., New York, Exclusively for AUTOMOTIVE *and* AVIATION INDUSTRIES

Renewed advances in general business activity are indicated. The *New York Times* index for the week ended Feb. 22 stands at 146.2, as against 144.7 for the preceding week and 127.9 a year ago.

Sales of department stores during the week ended Feb. 22, as reported by the Federal Reserve Board, equaled 216 per cent of the 1935-39 average, as compared with 246 per cent in the week before. Sales were 2 per cent above the corresponding distribution a year earlier, as against a preceding similar excess of 17 per cent. The total in 1947 so far reported is 15 per cent greater than the comparable sum in 1946.

Electric power production increased slightly in the week ended Feb. 22. The output was 21.8 per cent above the corresponding amount in 1946, as compared with a like advance of 21.0 per cent shown for the preceding week.

Railway freight loadings during the same period totaled 776,689 cars, 2.9 per cent less than the figure for the week before but 7.4 per cent above the corresponding number in the preceding year.

Crude oil production in the week ended Feb. 22 averaged 4,786,150 barrels daily, 28,500 barrels more than the preceding average and 72,500 barrels above the comparable output in 1946.

Production of bituminous coal and lignite during the week ended Feb. 22 is estimated at 13,030,000 net tons, or about 5.5 per cent above the output in the week before. The total production in 1947 so far reported is 3.2 per cent above the corresponding quantity in 1946.

Civil engineering construction volume reported for the week ended Feb. 27, according to *Engineering News-Record,* is $91,704,000, or 7 per cent below the preceding weekly figure and 5 per cent below the comparable sum in 1946. The total recorded for nine weeks of this year is 32 per cent more than the corresponding amount in 1946. The increase in private construction is 25 per cent, and the rise in public construction is 47 per cent.

The wholesale price index of the Bureau of Labor Statistics for the week ended Feb. 22 is 144.3 per cent of the 1926 average, as compared with 143.1 for the preceding week and 107.4 a year earlier.

Member bank reserve balances increased $11,000,000 during the week ended Feb. 26. Underlying changes thus reflected include a rise of $87,000,000 in Reserve bank credit and an increase of $14,000,000 in Treasury deposits with Federal Reserve banks, accompanied by a decline of $14,000,000 in money in circulation.

Total loans and investments of reporting member banks decreased $184,000,000 during the week ended Feb. 19. A decline of $25,000,000 in commercial, industrial and agricultural loans was recorded. The sum of these business loans, $10,648,000,000, shows a net increase of $3,262,000,000 in twelve months.

PRECISION --by the Ton

It's hard to imagine any work requiring more precise manual delicacy than that of a fine watchmaker. Handling tiny parts doesn't demand much strength, which is fortunate because hands capable of such fine work are seldom muscular. This combination of power plus precision—rare in machines—is the key to important production economies in modern industry.

It is common knowledge that *presses* deliver parts faster and at less cost than any other means of production. They exert enough force to make cold metal flow, and ordinarily shape complete parts in a single stroke. Clearing presses have been designed and built to extend that kind of economy to "stampings" weighing as much as a ton each, and to forming and coining operations where tolerances are expressed in ten-thousandths of an inch. Finished parts formerly cast, or welded, and slowly machined, can often be produced to advantage on a Clearing press.

Traditional methods of manufacture may be costing you unnecessary production expense. If you'd like to look at your operations in a new, modern light, Clearing can help you. It's worth trying, and it costs you nothing to consult with our engineers. A letter, a phone call or a telegram today might bring you a valuable weapon for the competitive business battle of tomorrow.

The progress of modern science is being helped by this specially built, high-precision Clearing laboratory press.

CLEARING

THE WAY TO EFFICIENT MASS PRODUCTION

CLEARING MACHINE CORPORATION

6499 WEST 65TH STREET • CHICAGO 38, ILLINOIS

PUBLICATIONS AVAILABLE

Publications listed in this department are obtainable by subscribers through the Editorial Department of AUTOMOTIVE *and* AVIATION INDUSTRIES. In making requests please be sure to give the NUMBER and TITLE above the item concerning the publication desired, your name and address, company connection and title.

62—Caustic Soda

Pittsburgh Plate Glass Co., Columbia Chemical Div. — 72-page, three-color booklet of interest to technical men, buyers and executives who desire useful data on the characteristics, uses, forms, transportation, constants, etc. of caustic soda. It contains many useful graphs, charts and diagrams, is well illustrated with descriptive photographs.

63—Flowrator Dimensions

Fischer & Porter Co.—Catalog Section 27-A, Dimension drawings for Series 700 Flowrator. Various types of indicating Flowrator instruments, along with panel mounting arrangements, electrical transmitters, pneumatic transmitters, etc. are included in the booklet.

64—ENB Air Operated Press Welders

Taylor-Winfield Corp. — Bulletin 3-113 describes and illustrates the two styles in ENB welders. Various tables are included — shipping weights and dimensions; specifications data — mechanical and electrical.

65—Arc Welding

The Lincoln Electric Co.—Learning to weld booklet provides a simple basic approach in making a start in arc welding. The booklet is well illustrated with typical applications of arc welding in repair and construction. Conversion tables of decimal equivalents and thicknesses of metal in both gage and in. are included, together with a glossary of welding terms. Copies may be had for $.25 (in U. S.) from Lincoln Electric Co., Cleveland 1, Ohio.

66—Rust Preventive Liquid

Rust-Oleum Corp.—Descriptive bulletin on R-9 its new liquid rust preventive designed specifically as a journal protective coating.

67—Horizontal Boring Machines

Barrett Machine Tool Co.—Six-page folder describing specialized horizontal boring machines. The two-color booklet gives boring bar, pedestal and bed dimensions, etc. for the most frequently used models.

68—Dual Drive Lathe

R. K. LeBlond Machine Tool Co.—A new book, The Silent Salesman, makes it possible for prospective lathe buyers to examine the product inside and out in their offices. It is printed in a new process, permitting the reader to disassemble and assemble the Dual Drive lathe piece by piece. The new technique used practically X-rays the lathe in three dimensions, giving a much better conception of the design, construction and maintenance. Descriptive text matter is keyed to the illustrations. The book may be obtained from the above company, Cincinnati 8, Ohio, for $1.00 per copy.

69—Sangamo Tachograph (Recording Speedometer)

Wagner Electric Corp. — Bulletin SU-3A explains in detail the Tachograph's operation in a manner of interest to truck and bus fleet owners. It covers such topics as driving by instruments, savings in maintenance, accident prevention and constant supervision of vehicles.

70—Glycol-Ethers

Carbide and Carbon Chemicals Corp. —Form 4765, Cellosolve and Carbitol

(*Turn to page* 198, *please*)

Two Sides to the Picture

PRECISION GEAR DIVISION

"A-Q" Gears, engineered and produced in the Precision Gear Division of Foote Bros., offer manufacturers new possibilities in the field of power transmission.

Their application holds the solution to many problems where conditions demand extremely high speeds—where every ounce of excess weight must be eliminated—where utmost efficiency is required.

The Precision Gear Division also has complete research, metallurgical, engineering and manufacturing facilities to produce Power Units and Actuators, which provide control from a remote point, within an exacting time cycle. These units assure accurate mounting, so essential if the full benefit of "A-Q" Gears is to be realized. Originally developed for airplanes, Power Units and Actuators are also applicable on industrial or construction equipment where better control is required.

INDUSTRIAL GEAR DIVISION

Nearly a century of experience is back of the power transmission equipment produced by the Industrial Gear Division of Foote Bros. This division offers a complete line of worm gear reducers and helical parallel shaft reducers in a wide range of ratios and sizes.

Many manufacturers also look to Foote Bros. to supply their needs for worm, helical, spur and bevel gears, completely manufactured from the original design to the finished gear. Sizes range from 16 D.P. up.

Foote Bros. gear cutting capacities include equipment capable of producing giant gears up to twenty feet in diameter for use on cement kilns and other large applications.

Still another phase of this company's operation is the construction of heavy machinery for locks, dams and bridges as well as special machinery built to specifications.

Regardless of what your requirement in the field of power transmission equipment may be, Foote Bros. will be glad to discuss the problem with you.

FOOTE BROS.

Better Power Transmission Through Better Gears

FOOTE BROS. GEAR AND MACHINE CORPORATION
Dept. F, 4545 South Western Boulevard • Chicago 9, Ill.

PERSONALS

Recent Personnel Changes and Appointments at the Plants of Automotive and Aviation Manufacturers and Their Suppliers.

Willys-Overland Motors — **Benjamin C. Bowker,** appointed Special Assistant to the President, James D. Mooney.

Nash-Kelvinator Corp., Nash Motors Div.—**Floyd G. Sease** appointed Assistant to the General Sales Manager.

Tucker Corp.—**Victor J. Schaeffner,** Director of Industrial Relations Dept.

Graham-Paige Motors Corp.—**Paul W. Heasley** appointed Vice-President.

Kaiser-Frazer Corp.—**A. J. Bedworth,** Asst. General Planning Supt.

Consolidated Vultee Aircraft Corp., Stinson Div.—**Robert W. Straughn,** Advertising and Sales Promotion Manager.

United Aircraft Corp., Hamilton Standard Propellers Div. — **William P. Huxley,** Sales Manager.

Automotive Electric Assoc. — **W. N. Potter,** General Manager of United Motors Service Div. of General Motors Corp., elected President.

McCord Corp.—Election of **P. L. Barter** as Vice Chairman of the Board of Directors. He will continue in his present capacity as Vice-President.

Federal-Mogual Corp., Federal-Mogul Service — **Gene W. Anderson,** Head of newly established Methods and Proceses Department.

Westinghouse Electric Corp.—**John E. Payne,** Headquarters Industrial Sales Manager. **C. G. Stainback,** Industrial Syndicate Manager.

The Timken-Detroit Axle Co. — **R. A. Obermeier,** Assistant Treasurer.

General Motors Corp., Harrison Radiator Div. — **J. Kenneth Bush,** General Plant Manager responsible for production and maintenance of all plants.

Minneapolis - Honeywell Regulator Co., Brown Instrument Div. — **L. M. Morley** elected Vice-President of parent company. Mr. Morley is Vice-President in charge of Sales for the Brown division.

Stewart-Warner Corp., South Wind Div. — **Harlan G. Pingrey,** Advertising Manager.

The Arco Co.—**John W. French,** Sales Manager of Production Finishes Dept.

Republic Drill & Tool Co. — **Ben T. Cowherd,** elected Vice-President in charge of Eastern District.

The Standard Products Co. — **Paul W. Seiler,** elected to Board of Directors. He is President of Motor Tool Mfg. Co.

Bendix-Westinghouse Automotive Air Brake Co.—**H. W. Jackson,** Service Manager.

Niles-Bement-Pond Co.—Resignation is announced of **Charles W. Deeds** as President and General Manager. Succeeding Mr. Deeds is **Frederick U. Conrad.**

The Steel Improvement and Forge Co. —**David E. Johnson,** appointed a Vice-President.

Gar Wood Industries, Inc. — **E. B. Hill,** named Director of Factory Sales.

Sharon Steel Corp.—**H. A. Roemer, Jr.,** elected Vice-President. Mr. Roemer is president of Detroit Seamless Steel Tubes Co.

Dearborn Motors Corp. — **Merritt D. Hill,** appointed General Sales Manager; **G. D. Andrews,** Advertising and Sales Promotion Manager.

General Motors Corp., Cleveland

Diesel Engine Div.—**T. E. Hughes**, General Sales Manager and **B. H. Gommel** Commercial Sales Manager.

Houdaille-Hershey Corp. — Houde Engineering Div. — **Elbert L. Potter** Divisional Sales Manager.

Towmotor Corp. — **Charles Edgar Smith** appointed to newly ceated position of Executive Vice-President.

International Nickel Co., Inc. — **H. J. Fraser** and **H. J. French** elected as additional Vice-Presidents.

Lear, Inc.—**Andrew W. Korb**, Sales Manager.

Pioneer Engineering & Manufacturing Co.—**Roy Farquharson**, Assistant Chief Engineer.

The Weatherhead Co. — **John Baldwin**, Asst. Chief Engineer with direct supervision of Project and Engineering and Drafting and Design Groups. **B. R. Teree**, Laboratory Director.

The National Screw and Manufacturing Co. — **George F. Jenkins**, Assistant Sales Manager, replacing **C. L. Kerr** who has resigned to form his own company, the C. L. Kerr Industries, Inc.

General Electric Chemical Dept., General Electric Co.—**Robert A. Nisbet, Supt. of Waterford Works.**

Kelite Products, Inc.—**A. T. Gibson**, newly created office of Assistant to the President.

North American Phililps Co., Inc.—**John L. Abbott**, Application Engineer, Industrial X-ray Div.

Agaloy Tubing Co. — **C. E. Jones**, Vice-President.

January Passenger Car Sales Below December Figure

Passenger car factory sales for January totalled 247,130, or 93 per cent of total sales in December 1946, according to an industry-wide survey announced by the Automobile Manufacturers Association.

Continuing materials shortages was the principal reason for the drop from the December figure. Motor truck and coach sales for January totalled 102,345 units, or 94 per cent of December 1946, total. Total new car, truck and coach sales for January were 349,475, about 93 per cent of December's sales.

Russian Automobile Industry Failed to Make Quota

Apparently automobile manufacturers under the capitalistic free enterprise system are not the only ones who suffered financial losses last year. A report from Moscow says that the Soviet automobile industry fell far short of its planned production for 1946 and that it lost 140 million more rubles than had been expected.

SUPERIOR ABRASION RESISTANCE

Parts made from HYCAR synthetic rubber have 50% greater abrasion resistance than parts made from natural rubber. That means they'll last longer, give more dependable performance in the most severe service, and save maintenance and replacement time.

But that's only one of HYCAR's unusual and valuable properties. Examine the list in the box at the right. Think of these properties in terms of your requirements of rubber parts. Realize that these properties may be had in an almost limitless number of combinations, each designed to meet the specific service conditions of the finished part.

We have developed more than 5000 recipes for HYCAR compounds — each compound engineered to do a certain job. If you're looking for rubber parts that will give long life, dependability, and economical operation, *specify HYCAR.*

Ask your supplier for parts made from HYCAR. Test them in your own applications, difficult or routine. You'll learn for yourself that it's wise to use HYCAR for long-time, dependable performance. For more information, please write Department HD-3, B. F. Goodrich Chemical Company, Rose Building, Cleveland 15, Ohio.

CHECK THESE SUPERIOR FEATURES OF HYCAR

1. *EXTREME OIL RESISTANCE — insuring dimensional stability of parts.*
2. *HIGH TEMPERATURE RESISTANCE—up to 250° F. dry heat; up to 300° F. hot oil.*
3. *ABRASION RESISTANCE—50% greater than natural rubber.*
4. *MINIMUM COLD FLOW—even at elevated temperatures.*
5. *LOW TEMPERATURE FLEXIBILITY—down to —65° F.*
6. *LIGHT WEIGHT—15% to 25% lighter than many other synthetic rubbers.*
7. *AGE RESISTANCE—exceptionally resistant to checking or cracking from oxidation.*
8. *HARDNESS RANGE—compounds can be varied from extremely soft to bone hard.*
9. *NON-ADHERENT TO METAL—compounds will not adhere to metals even after prolonged contact under pressure. (Metal adhesions can be readily obtained when desired.)*

Hycar

Reg. U. S. Pat. Off.

American Rubber

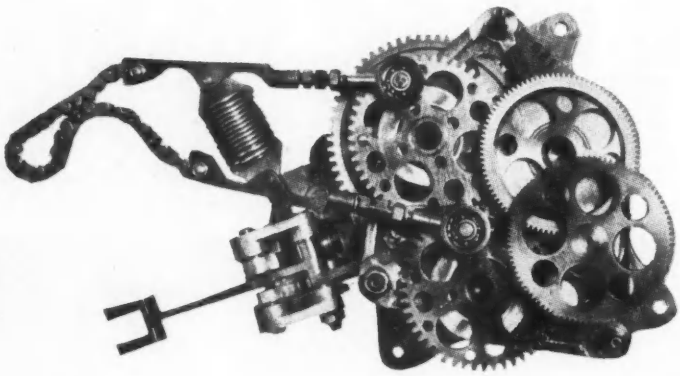
B. F. Goodrich Chemical Company

A DIVISION OF THE B. F. GOODRICH COMPANY

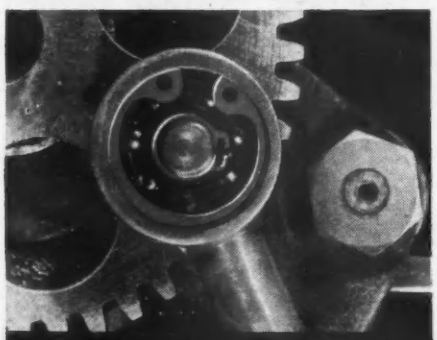
36 TRUARC rings reduce weight, eliminate

• Waldes Truarc retaining rings cut machining, assembly, maintenance time

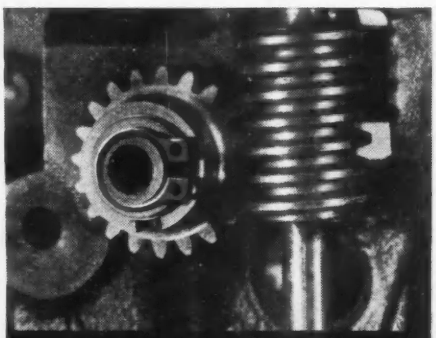
Tiny rings easily installed keep link pins in position, are easily removed for repairs.



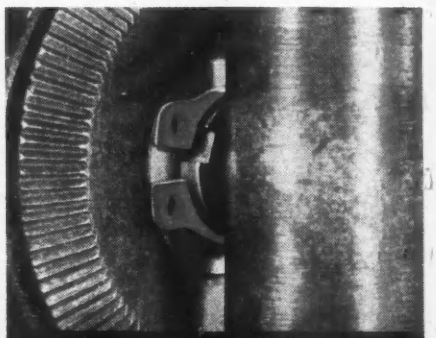
Courtesy of Dalmo-Victor



Truarc snaps in place easily as a ball-bearing retainer, allows shorter bushing.



Gears stay secure: Truarc saves space in this gear and worm application.



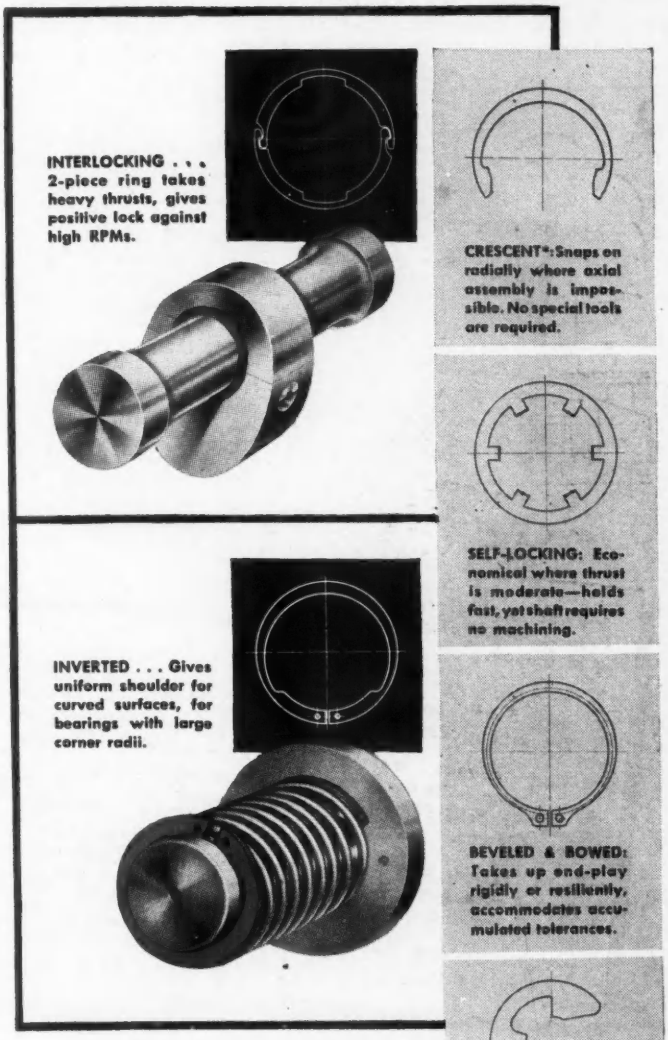
Assembly in cramped space with practically no clearance is simplified with Truarc ring.

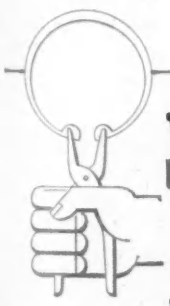
"TRUARC NOT ONLY REDUCES WEIGHT IN OUR APS-4 AIRCRAFT ANTENNA," states Dalmo-Victor, of San Carlos, California, "but also saves numerous machining, drilling and threading operations and reduces assembly and maintenance time. Waldes Truarc Retaining Rings are easy to install and remove, give equal pressure over a continuous surface because of their perfect circularity, and eliminate large numbers of tools hitherto required. They do not deteriorate under the most rigorous operating conditions."

parts in complex radar aircraft antenna!

Wherever permanent maintenance of tolerance is important, Truarc rings keep moving parts in accurate relationship. In all industries, designers find Truarc a better way of fastening machine parts; production and maintenance men find Truarc cuts costs.

There are different Truarc rings for any need, in a complete range of sizes, for internal or external use. For example, there are Truarc rings that can be applied radially where axial assembly is impossible. Another type of ring is designed to take up end-play. Whatever your specifications, there's a Truarc ring that will do your fastening job better than screws, bolts, machined shoulders or cotter pins. Waldes Truarc engineers will be glad to assist in solving your problems. Send us your drawings; see how Truarc can help you.



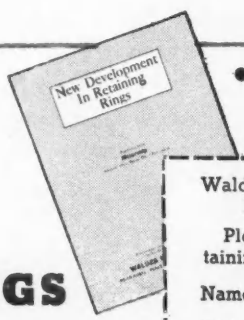


WALDES TRUARC

U. S. PATENT RE. 18,144 AND OTHER PATS. PEND.

RETAINING RINGS

WALDES KOHINOOR, INC., Long Island City 1, New York



● *Send for New Truarc booklet, "New Development in Retaining Rings"*

Waldes Kohinoor, Inc., 47-10 Austel Place 13-L
Long Island City 1, N. Y.

Please send booklet, "New Development In Retaining Rings" to:

Name_____

Title_____

Company_____

Business Address_____

City_____ Zone_____ State_____

*U.S. Patent 2,382,948

Frazer Farm Equipment Co. Formed by Graham-Paige

Formation of the Frazer Farm Equipment Corp. as a wholly-owned subsidiary of Graham-Paige Motors Corp., has been recently announced by Joseph W. Frazer, president of Graham-Paige and Kaiser-Frazer Corp. The new company will take over the manufacture of the Rototiller farm machine and the marketing of the complete line of Frazer Farm Equipment, previously operated as a division of Graham-Paige.

The books of the Graham-Paige Motors Corp., Mr. Frazer said, show the farm implement division of the business as currently earning at the rate of $1,200,000 per year before taxes. Orders on the division's books at the present time total more than $32 million at net price to the company, he added.

Manufacturing facilities and offices of the new subsidiary will be moved from their present Willow Run location in the near future, Mr. Frazer disclosed. The transfer, he said, is necessitated by the expanding automotive production of Kaiser-Frazer and that corporations need for additional manufacturing space now utilized in Rototiller production.

GMC Truck & Coach Expanding Engine Building Facilities

Construction is now underway on the new engine manufacturing plant being built by General Motors Corp. Truck & Coach Div. at Pontiac, Mich. Construction had been delayed because of material shortages, although foundations were laid last August. However, now all of the materials required for completing the plant are on the site, and work is progressing rapidly. This is part of an expansion program at GMC Truck & Coach that will eventually add nearly two million sq ft of floor space. A one-story coach assembly building, 720 ft long and 540 ft wide, has been completed and is in operation. A two-story engineering building containing 198,000 sq ft also is nearing completion. In addition a dynamometer test building is under construction which will have facilities for carburetor, single-cylinder engine, gyration, chassis, transmission and axle tests. It has seven dynamometer test stands and a cold room.

New SAE Standard for Hydraulic Brake Fluid

The first SAE standard for hydraulic brake fluids used in motor vehicles has been approved by the Technical Board of the Society of Automotive Engineers for publication in 1947 SAE Handbook.

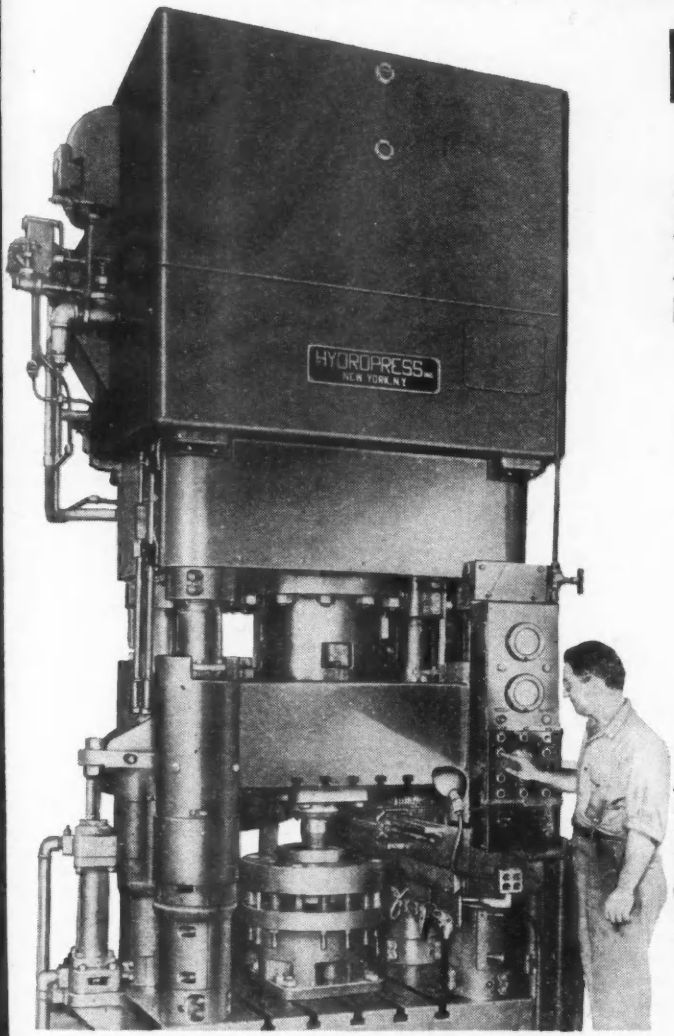
The standard, outgrowth of work initiated in 1936, was prepared by the Hydraulic Brake Fluid Subcommittee which is comprised of engineers from the staffs of manufacturers of hydraulic fluids, brakes, and vehicles. It covers heavy-duty and moderate-duty fluids, outlines minimum performance requirements, physical properties, and details test procedure and apparatus.

Specifications establish such properties as viscosity and water tolerance; boiling, flash, and cold points; neutrality, stability, rubber swelling, and corrosion limitations. Heavy-duty fluids, for use under severe operating conditions, have a temperature range of —40 F to 130 F. Moderate-duty fluids, for lighter service, have a temperature range of —30 F to 130 F.

Weekly Production of Cars and Trucks in U. S. and Canada

Week-ending		1947	Corresponding Week in 1941
Jan.	4	53,437	76,690
	11	64,828	115,935
	18	75,166	124,025
	25	93,278	121,948
Feb.	1	94,114	124,400
	8	89,958	127,675
	14	97,276	127,510
	21	103,400	127,740
	28	105,175	126,550
Mar.	7	104,437	125,915
	Total	881,069	1,198,388

HYDRAULIC PRESSES FOR POWDER METALLURGY FOR THE AUTOMOTIVE INDUSTRY



500 TON SELF-CONTAINED OIL-HYDRAULIC
PRE-PRESSING AND COINING PRESS FOR POWDERED METAL
AT THE AMERICAN ELECTRO METAL CORP., YONKERS, N. Y.

MORE THAN SEVENTY AUTOMOTIVE PARTS ARE BEING CURRENTLY MADE FROM METAL POWDERS

GEARS FOR OIL PUMPS
POLE PIECES
OIL PUMP ROTORS
GENERATOR BRUSHES
MOTOR RESISTANCE RINGS
MOTOR ROTOR BARS
BRAKE LININGS
CLUTCH FACINGS
SELF LUBRICATING BEARINGS
SPECIAL HARDENED WASHERS, ETC.

1 AT A FRACTION OF COST
2 AT GREATER SPEED
3 TO CLOSE TOLERANCES
4 WITH LITTLE OR NO MACHINING
5 AT NO SCRAP LOSS

OUR PRESSES ARE CUSTOM-BUILT TO THE SPECIFIC PRODUCTION REQUIREMENTS OF EACH CUSTOMER

VISIT OUR
BOOTH 249
WESTERN METAL
EXPOSITION
MARCH 22 to 27, 1947
CIVIC AUDITORIUMS
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HYDR PRESS · INC.

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HYDRAULIC PRESSES · ROLLING MILLS · PUMPS
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AAPM Elects New Officers

Newly elected officers of the Automotive & Aviation Parts Manufacturers, Inc., for the 1947 term are: president, John Airey, president of King-Seeley Corp., Ann Arbor, Mich.; vice president, George W. Kennedy, president of Kelsey-Hayes Wheel Co., Detroit; and secretary-treasurer, James L. Myers, executive vice president of Cleveland Graphite Bronze Co., Cleveland, Ohio. President Airey succeeds Frederick C. Crawford, of Thompson Products, Inc. The association membership numbers approximately 400 plants in the automotive and aircraft parts industries, according to Frank Rising, general manager.

New directors are: Wendell W. Anderson, Bundy Tubing Co., Detroit; K. J. Ammerman, Borg-Warner Corp., Chicago; C. C. Carlton, Motor Wheel Corp., Lansing, Mich.; R. H. Daisley, Eaton Mfg. Co., Detroit; and F. C. Greenhill, Acklin Stamping Co., Toledo, Ohio.

Directors, in addition to officer-directors, retaining office for unexpired terms are: F. C. Crawford; W. A. Baker, Firestone Steel Products Co., Wyandotte, Mich.; F. L. Burke, General Motors Corp., Detroit; J. D. Eby, Wagner Electric Co., St. Louis; D. H. Kelly, Electric Auto-Lite Co., Toledo, Ohio; Walter F. Rockwell, Timken-Detroit Axle Co., Detroit; and J. Y. Scott, Van Norman Co., Springfield, Mass.

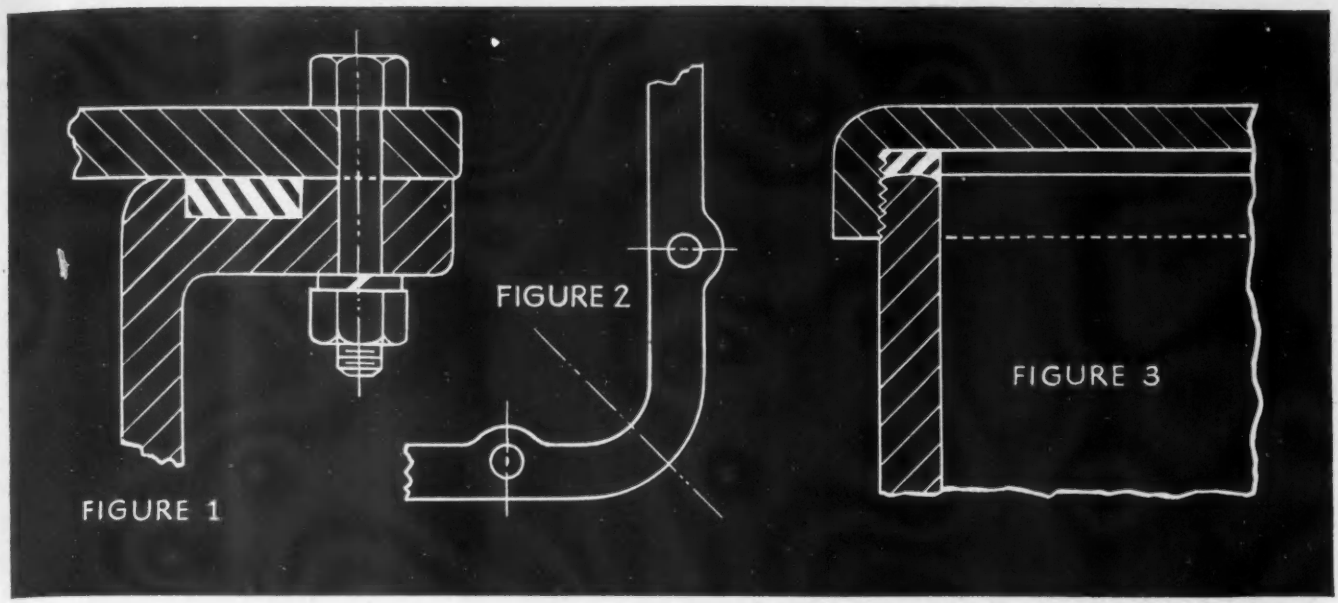
Steel Shortage Reduces Motor Wheel Production

The Motor Wheel Corp. is operating at approximately 60 per cent of plant capacity as a result of being able to obtain only about two-thirds of the steel it requires. However, dollar sales volume, reflecting the 1946 general price increase, during January and February was more than double that of the corresponding months of 1946.

CALENDAR

Conventions and Meetings

Amer. Soc. of Lubrication Engineers—Annual Convention, Pittsburgh, Mar. 17-19
Amer. Soc. of Tool Engineers—Fifteenth Annual Convention — Houston, Texas .....Mar. 19-22
Amer. Soc. for Metals, San Francisco, Mar. 22-27
American Helicopter Society—Third Annual Forum, Philadelphia ....Mar. 27-29
Midwest Power Conference, Chicago, Mar. 31-Apr. 2
Nat'l Assoc. Corrosion Engineers, National Convention, Chicago...April 7-10
Amer. Management Assoc. Packaging Exposition, Phila. .....April 8-11
Soc. of Automotive Engineers, Aeronautic Mtg., New York.....April 9-11
Soc. of Automotive Engineers, Transportation Mtg., Chicago.....April 16-18
Chamber of Commerce of the United States, Annual Mtg., Washington, D. C. .....Apr. 28-May 1
Amer. Foundrymen's Association, Annual Convention, Detroit.Apr. 28-May 1
Soc. of Automotive Engineers, Personal Airplane Mtg., Wichita, Kansas, May 1-2
The Society of the Plastic Industry, Natl. Plastics Exhibition, Chicago, May 6-10
Soc. for Experimental Stress Analysis Annual Mtg., Chicago.....May 15-17
Nat'l Assoc. of Motor Bus Operators Annual Mtg., Chicago.....May 21-23
Amer. Soc. of Mechanical Engineers—Oil & Gas Power Nat'l Conference—Cleveland .....May 21-24
Auto. Engine Rebuilders Assoc. Convention, Detroit .....May 22-24
Amer. Soc. of Mechanical Engineers—Aviation Mtg., Los Angeles..May 26-29
Inst. of the Aeronautical Sciences Personal Aircraft Mtg., Detroit..May 26-27
Metal Powder Assoc., Spring Mtg., New York .....May 27
Soc. of Automotive Engineers—Summer Mtg. French Lick Springs, Ind..June 1-6
Amer. Soc. of Mechanical Engineers—Semi-Annual Mtg., Chicago..June 16-19
Amer. Soc. of Testing Materials—Annual Mtg., Atlantic City.....June 16-20
Institute of the Aeronautical Sciences, Annual Summer Mtg., Los Angeles, Aug. 7-8
Soc. of Automotive Engineers—West Coast Transportation & Maintenance Mtg., Los Angeles.....Aug. 21-23
Amer. Soc. of Mechanical Engineers—Fall Mtg., Salt Lake City....Sept. 1-4
Instrument Society of America Conference, Chicago .....Sept. 8-12
Society of Automotive Engineers—Tractor Mtg., Milwaukee....Sept. 17-18
Natl. Machine Tool Builders Assoc. Machine Tool Show, Chicago, Sept. 17-26



DESIGNING FLANGES FOR EFFICIENT SEALING

Mechanically correct joints prevent most gasket specification difficulties

Since the satisfactory functioning of a unit may depend upon maintaining a tight seal at some point, that seal merits the same care and forethought as any other aspect of a design. To neglect gasketing problems until a unit is built and ready for testing is to invite inefficient, makeshift sealing. When this imposes excessive demands on a gasket, chronic service difficulties are likely to result.

By contrast, an effective seal at the lowest consistent cost is relatively easy to attain when a joint is designed to meet the requirements not only of the unit itself, but also of the probable resilient material to be used in it. Consequently, flange design is perhaps the first factor to be considered in arriving at a gasket specification.

The kind of joint needed is determined by the requirements of the unit. For example, precise alignment of internal parts may demand a metal-to-metal design. In that event, an offset flange may be required to allow for a gasket channel (Figure 1). For use with non-compressible gaskets, such as straight rubber, a relief for side flow must be provided. No relief is needed for cork-and-rubber gaskets.

Flange finish must be considered in relation to the type of gasket material demanded by operating conditions within the assembly. If a soft, resilient material can be used, it may be economical to leave the flange relatively rough. The gasket will fill in any normal irregularities. On the other hand, if close alignment is needed, a smooth flange will be necessary to get a tight seal with the thin gasket required for close-tolerance assembly.

Bolt holes or studs should not be too large in relation to the cross-sectional area of the gasket. Thin wall sections may blow out if internal pressure is present. Furthermore, large holes make a gasket fragile and hard to handle during assembly. On a narrow flange, gasket walls may be widened at bolt holes by adding either inside or outside "ears" as illustrated above (Figure 2).

When a sealed edge is brought into contact with a gasket by torsion, that edge should be made smooth to avoid cutting the gasket (Figure 3).

An Armstrong representative will be glad to call and discuss your specific sealing problem with you. Because of his diversified gasketing experience, he may be able to suggest design modifications that will save both time and expense in arriving at a satisfactory seal. He will also suggest suitable gasket materials and supply samples for testing in experimental units. A district office is conveniently near you.

If you prefer, send drawings and complete details to us. You will find our recommendations unbiased and keyed to good current gasketing practice.

Pratt & Whitney Building Gas Turbine Laboratory

Pratt & Whitney Aircraft Division of United Aircraft Corp. broke ground recently for the first unit of a proposed several-million dollar gas turbine laboratory in connection with its program of gas turbine engine research and development.

The new laboratory will be situated on the east bank of the Connecticut River at a point opposite Hartford's Brainard Aviation Field, about a half mile southwest of Pratt & Whitney's main manufacturing plant. The section will contain two compressor test units complete with power generating plant.

In the development of turbine power plants, laboratory equipment is required differing radically from that used in the testing of reciprocating engines. This is mainly because the internal or unused power of the turbine greatly exceeds that of the piston engine. Also the mass of air required to feed it is many times that of a corresponding conventional engine.

To handle the high powers necessary to produce this tremendous flow of air, and to drive the mechanisms for simulating countless conditions of altitude, temperature and speed found in actual flight, powers ranging from 5,000 to 18,000 hp in single test units will be needed—far greater than any ever called for in Pratt & Whitney's piston engine test houses. Giant steam turbines will provide this power.

Union Pacific's Container Engineer "Highly Successful"

The Union Pacific Railroad Co. called its past year's experience with a container engineer "highly successful." The Union Pacific added Warren R. White, a packaging expert, to its staff shortly after V-J Day in an effort to counteract the increasing burden of freight loss and damage payments. Railroading has progressed in every field from a technological standpoint, but the freight loss and damage curve has moved steadily upward.

A shortage of competent packagers, inferior packaging materials, and a shortage of all classes of labor during the war, were all factors contributing to this condition. However, following the end of hostilities, shortages were alleviated somewhat, and agitation to raise packaging standards began. In addition, hundreds of new businesses had been formed since the war, each with its own peculiar packaging problems.

The container engineer investigates instances of container failure, personally and with the help of local freight and freight service inspectors. An analysis is prepared, and the engineer prepares a report to be submitted to the general freight claim agent. Letters based upon these reports are written to the party or parties concerned—shipper, receiver, or manufacturer. If necessary, personal conferences are arranged. This remedial program has resulted in tangible savings, both in dollar value and in scarce commodities, to the shipping public and carrier.

Laboratories Completed For Borg-Warner Superchargers

The completion of highly modern research laboratories and the addition of new machine tool equipment to facilitate the production of B-W Superchargers in the Pesco Products Div. of Borg-Warner Corp., in Cleveland, was announced by C. S. Davis, president, Borg-Warner Corp.

The Pesco engineering staff is concentrating at present on developing superchargers for heavy duty gasoline engines for trucks, buses and other industrial uses. In addition, there is extensive research on superchargers for small, high-speed Diesel engines and for the engines of light pleasure planes.

The B-W Supercharger laboratories contain several cells for the testing of various types of engines under supercharged conditions and for the endurance testing of the superchargers themselves.

New Facts on Plating of Automotive Die Castings

In a recent paper before the Electroplaters' Society, a representative of the Fisher Body-Ternstedt Division presented some interesting facts concerning the plating of automotive zinc die castings. Of all the high purity zinc alloy used for zinc base die castings, at least 75 per cent finds its way into automotive applications. About 75 per cent of these are finished in chromium plate.

The current trend in the industry is toward heavier deposits of electroplated coatings to provide still better corrosion resistance. GM specification "AA" calls for a total thickness of 0.0015 in. while "AAA" has a thickness of 0.002 in.

Since cost is a vital consideration in the plating of zinc die castings, GM has held a series of joint industry conferences on die casting quality to resolve complaints of increased processing costs due to surface defects in the castings. Two important conclusions came out of these conferences: (1) that die casters recognize the need for smooth castings free from surface defects; and (2) that while the gating of a die must be considered as an art, there is sufficient knowledge of the principles of gating and die casting machine operation and metal control to regard it as fair on the part of the finisher to demand castings with smooth, sound surfaces.

Cleaning of die castings before plating is a basic operation and one of the most difficult to handle. It is GM practice to employ trichlorethylene degreasing as the first operation, using the so-called three-phase degreaser.

In plating they use a standard GM copper strike solution followed by deposits of copper and nickel. To reduce production costs, there is an increasing tendency to use bright copper deposits and bright nickel followed by chromium plate without buffing on either the copper or nickel.

Although there is no altogether satisfactory method for stripping heavy deposits of copper and nickel from die castings, stripping is an essential salvage process and the author recommends the use of sulfuric acid. Stemming from experimental work at Ternstedt they have standardized on a concentration of 50 to 55 per cent, the bath being held at 150 F with a nine volt current supply. The attack on the die casting is not ordinarily excessive.

Reduction in Discounts on Replacements Parks Unlikely

A check with automobile manufacturers in Detroit has failed to uncover any evidence that a reduction in discounts on replacement parts to dealers is an immediate prospect. In a set of resolutions drawn up by dealers at the NADA convention at Atlantic City in mid-February, it was stated that such discounts were indicated. All manufacturers stated that there have been minor individual adjustments on specific parts, but these have been so limited in number as to be unimportant and certainly there has been nothing to indicate a trend toward a lower discount on replacement parts.

Gas Turbine Engine to be Tested by Wright on B-17

A new large gas turbine engine which has been developed by Wright Aeronautical is to be tested in a B-17 Flying Fortress. The thrust developed by this engine on the block is equal to 7,500 hp, and it will be placed in a B-17 nose so that it can be tested alternately with the four reciprocating engines.

Expansion at Pontiac

Over a million sq ft will be added eventually to the production area of General Motors' Pontiac Motor Div. The sheet metal, axle, and engine plant departments as well as the foundry are to be enlarged, and this is expected to make possible a 50 per cent increase in production.

BOOKS ...

PRECISION HOLE LOCATION — by *J. Robert Moore.* 448 pages, 412 illustrations, published by *The Moore Special Tool Co.*, Bridgeport, Conn. This is the first authoritative book published on this phase of toolmaking. It is a comprehensive review of all hole-location practices and their evolution to the point where the toolmaker can now employ engineered methods. This will enable him to apply the principle of interchangeability to his own operations. The book goes into the history of old methods merely as an intrduction to a complete explanation of ways and means of applying jig borer and jig grinders successfully to a wide variety of tool, die and production operations demanding precision hole locating and finishing. To any person interested in either the technical or business aspects of better tooling for mass production, this book will prove of practical assistance. It is illustrated with approximately 500 instructional photographs and working drawings. Included as part of the book are 184 pages of Woodworth Hole Location Tables for converting holes on circles to rectangular coordinates which will prove of invaluable usefulness to every jig borer or jig grinder operator. These tables are not available elsewhere.

Differential Wheel Assigns Patents to Timken-Detroit Axle

Patents for a new type of steering dual wheel front axle assembly for trucks have been assigned by Differential Wheel Corp. to Timken-Detroit Axle Co. The steering dual arrangement is said to permit shifting load weight much farther forward than with conventional construction, thus overcoming overall length limitations in effect in many states. It is not known whether or not Timken plans to push development at this time.

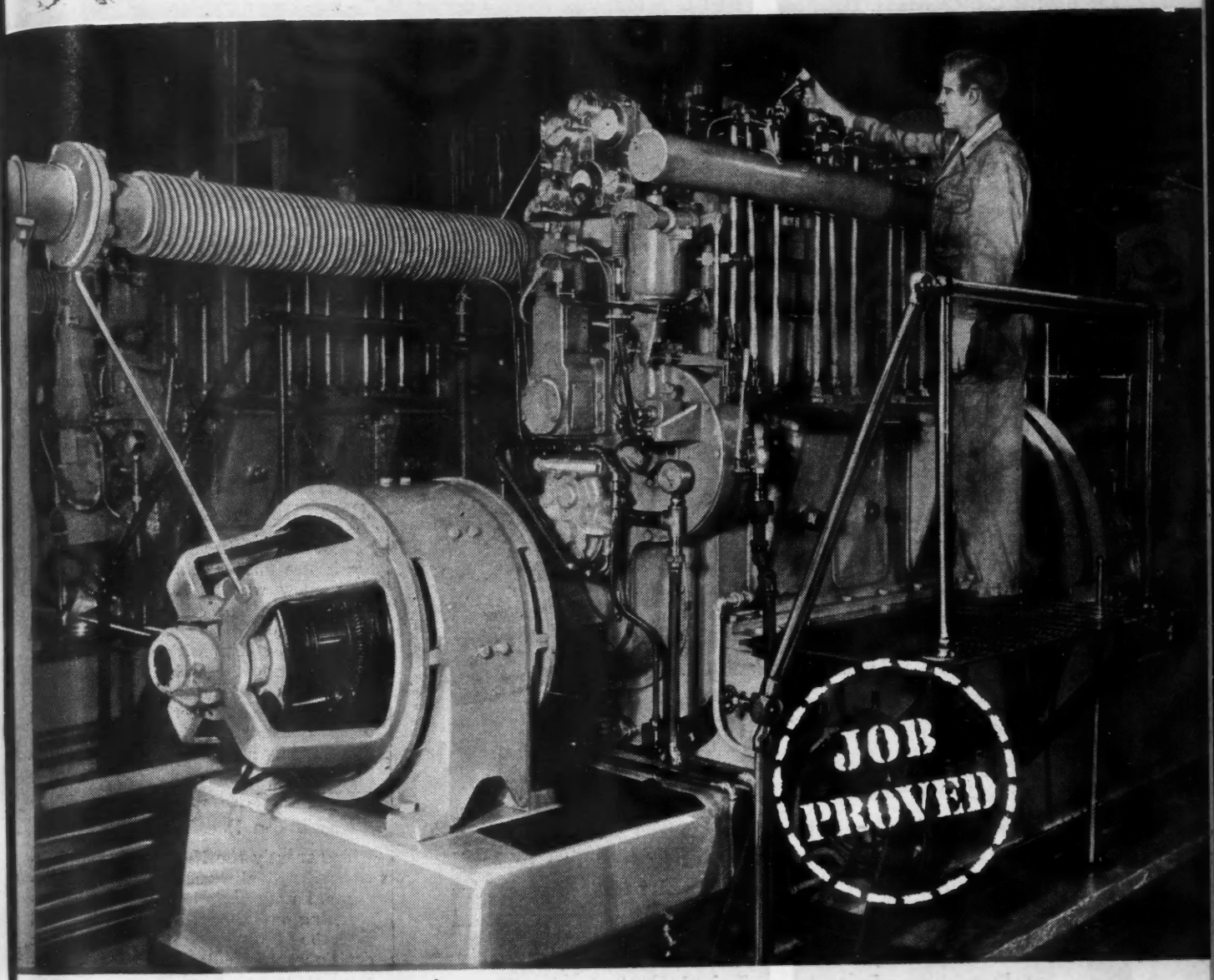
Harry Ferguson to Finance Tractor Bldg. with Stock Issue

Harry Ferguson, Inc., has announced that it plans to issue a public offering of stock to finance the manufacturing program of the Ferguson tractor. Ferguson currently is acting as distributor for the tractor built by Ford Motor Co., but after next June 30 will build its own tractor. The company plans to issue 100,000 shares of preferred stock and 250,000 shares of common stock. Terms, dividend rate, and offering prices will be announced later.

Federal Motor Truck Company's Production at All-Time High

Federal Motor Truck Co. produced more than 900 trucks in February, a record for any peacetime month in the company's history. Federal still has over $20 million worth of orders on its dealers' books with demand reported very heavy. In its report to stockholders, the company said that during the last two months of 1946 it was forced to substitute hand built radiators at a higher cost to keep production moving when its regular supplier was shut down by a strike.

Two Years Without Repairs, Replacement or Overhaul



SUN DIESEL LUBRICANT . . .

Keeps Two Diesels in Perfect Condition and Puts an End to Frequent Overhauls

A municipal plant which uses two 125-horsepower Diesels for pumping was confronted with a serious lubrication problem. Oil was forming sludge with the result that frequent shutdowns and overhauls were necessary.

A Sun Engineer was called in and after careful analysis recommended a Sun "Job Proved" oil specially refined to stand up under the particular operating conditions.

With Sun oil in the crankcases, the engines were kept in regular service for more than two years. Sludge disappeared. Oil consumption dropped. Mechanical repairs, replacements and overhauls were reduced to practically nothing. There was no excess carbon formation.

The ability to solve problems like this is typical of "Job Proved" products and of Sun Engineers. Wherever you have a tough problem involving petroleum products, whether in power plant, machine shop, mill or factory, call your nearest Sun office or write Department AA3.

SUN OIL COMPANY • *Philadelphia 3, Pa.*

SUN

SUNOCO

INDUSTRIAL PRODUCTS

Gabriel Co. Has License Agreement With Dowty Corp.

In his annual statement to the stockholders, John H. Briggs, president, The Gabriel Co., Cleveland, Ohio, confirmed a recent report that the company had entered into an exclusive license agreement with the Dowty Corp., of Cheltenham, England, for what is claimed to be a revolutionary type of motor vehicle suspension. Although it has been successfully employed in landing gear for military aircraft in England, the automotive application still is in its experimental stage and may take three years or more for its fruition.

According to a recent report the device presents a special adaptation of what may be termed an oil-filled direct acting shock absorber. While it resembles a hydraulic shock absorber, it differs materially in principle since both impact and rebound are cushioned entirely by the liquid. The principle may be termed "liquid springing."

If and when commercial adaptation has reached a practical stage, four of the liquid spring units would be used per car, to the exclusion of conventional springs and shock absorbers. Because liquid springing would have to be tailor-fitted to each type of vehicle, it would be available only as original equipment.

The report also confirms the recent acquisition of The Ward Products Div., a well-known producer of radio antennae. This organization has completed work for entrance into FM and Television antennae fields. At present it supplies radio antennae as original equipment to Ford, Hudson, Pontiac, Nash, and Willys.

Record U. S. Rubber Consumption in 1946

Rubber consumption in the United States last year passed the million ton mark by a margin of more than 34,000 tons, it was disclosed recently in a compilation of final figures on usage.

Consumption figures shattered all previous records. Manufacturers used 1,034,190 tons in 1946, 799,099 tons in 1945, and only 648,500 tons in 1940, the previous record for a full, peacetime year.

International Car Show Being Held at Geneva

Automobile shows on an international basis are once again being held. The last show was in 1939, and now the Seventeenth International Exposition of Automobiles is being held at the Palais des Expositions at Geneva, Switzerland, from March 13 to 23. Among the 62 automobile makes exhibited, 19 are from the United States, 22 from Great Britain, 13 from France, 6 from Italy and 2 from Czechoslovakia.

NLRB Decisions Show Trend Away From Pro-Labor Bias

Apparently the National Labor Relations Board also reads the election returns. Lately there has been some backtracking on earlier decisions which held in favor of striking employes. In recent decisions, particularly in the Thompson Products reversal decision, it is held that strikers who participate in unlawful walkouts forfeit their protection under the Wagner Act and can be replaced without violating the Act.

Automobile Old Timers Form Massachusetts Council

A Massachusetts Council of the Automobile Old Timers, the sixth unit to affiliate with the national organization, has been formed at a recent meeting in New York City. The following officers were elected: George A. Long, honorary president for life; Frank H. Wing, president; Dean A. Fales, vice president; and C. Norman Fay, secretary-treasurer.

Anthony C. Anderson

Anthony C. Anderson, 63, controller of General Motors Corp., died on Feb. 22, 1947, after an extended illness.

News of the Industry

(*Continued from page* 172)

tion, but it is understood to be leaning in the direction of affirming these economic issues to be a form of wages and therefore legal subjects for collective bargaining under the Wagner Act. If that view is upheld, it would mean that employers would be required to negotiate on health and welfare, pension, and insurance demands, since to refuse would make them liable to charges of unfair labor practices.

Investigating Multiple Car Purchases in Detroit

Trafficking in new cars by individuals in Detroit who have by one means or another been able to get delivery of two or more new vehicles is under investigation by the Michigan Secretary of State's office.

Through a check of records maintained by the Detroit Automobile Dealers Association, it was disclosed that more than 600 individuals have purchased more than three new automobiles each. One person is shown to have bought 19 new vehicles, another bought 12, and hundreds of others obtained varying numbers ranging from eight down to three or four. Included among the list were a few individuals operating taxicabs, and a few others who had a legitimate reason for multiple purchases.

Principle interest of the State in the investigation is evasion of sales taxes on new cars which have been resold at a profit, and also as a matter of a State law which considers any person who sells two or more cars a year for profit to be an automobile dealer requiring a license and payment of a $10 fee. The Federal Internal Revenue Department also is interested in the investigation from the standpoint of whether gains derived from resale of new cars at a profit are reported for tax purposes.

Since many resales were made to friends, it will be difficult to get evidence in most cases that a profit was realized. Also some of the cars were sold out of the State and no record exists of the transfer. However, it is thought that the adverse publicity resulting from publication of names of individuals involved and the threat of State and Federal investigation will slow down somewhat the practice of multiple purchases for resale.

Pig Iron and Steel Shortage Restricts Car Production

Even though automobile production is running 100,000 cars and trucks a week, material shortages continue to hold the top spot as a possible future obstruction to all-out production. The pig iron scarcity is becoming increasingly serious and copper also is beginning to show signs of causing trouble in the near future. A report from Washington says that allocation of pig iron by the Government will be discontinued after March 31 for all items except cast iron soil pipe. Such action certainly would be a step in the right direction, but still would pose something of a problem since a large amount of iron could be diverted to the manufacture of soil pipe.

Difficulty in the copper supply situation stems from termination of the Government copper buying program abroad at the end of 1946. It is believed that between 40 and 50 thousand tons of foreign copper contracted for prior to termination of the buying program has arrived in this country but it is not yet known whether it will be sold to U. S. manufacturers or put in the national stock pile. Copper shipments in March are expected to approximate 91,000 tons compared with shipments of 143,692 tons in January of which nearly 60,000 tons was foreign copper allotted by the Government. It is believed, however, that manufacturers have enough inventory of copper to carry through March but that they are worried about April when little foreign copper is expected.

Sheet steel still is in short supply but the outlook in that field is hopeful and it is thought that by mid-summer

adequate supplies will be available. It is estimated that the automotive industry now is getting about 32 per cent of the total sheet and strip output of the country, compared with 37.6 per cent in 1940. As steel production continues to climb the automotive industry's percentage share should likewise increase.

GM Suggestion Plan Carries War Success into Peacetime

The wartime success of the General Motors suggestion plan has been carried forward into peacetime. Approximately $3 million in awards have been made from the inception of the plan in 1942 through 1945. The improvement of quality or quantity of production; the saving of material or labor costs; and the promotion of safety or health conditions are all potential suggestion areas. Non-supervisory employes who submit acceptable suggestions are awarded U. S. Savings Bonds or stamps in five classes ranging in values from $7.50 to a maximum of a $1000 bond.

During the actual operating period of 1946, 28,457 suggestions were submitted, 25,927 were reviewed and of these, 7,024 were accepted. Awards of $233,040.95 were made to 6,710 of those whose suggestions were accepted. For twenty imaginative workers whose horizons extended beyond their immediate jobs, twenty $1000 bonds were awarded for outstanding suggestions.

Tucker Gets Extension of Time to Complete Financing

The Tucker Corp. has announced that it has obtained from the War Assets Administration an extension to July 1 of its interim contract to lease the huge Dodge Chicago plant for manufacture of the Tucker automobile. The 120-day extension was agreed upon to give WAA time to dispose of surplus machinery and to allow Tucker to complete a financing program. Under the original letter of intent last year, WAA gave Tucker until March 1 of this year to show that it had at least $15 million of working capital. However, the wrangle between WAA and FHA over jurisdiction of the plant lease delayed organization plans. It now is understood that Tucker is planning a stock issue of 4 million shares of common stock to be offered to the public at $5 a share, and that additional financing is to come from sale of dealer franchises.

AMA Fact Book Ready To Come Off Press Soon

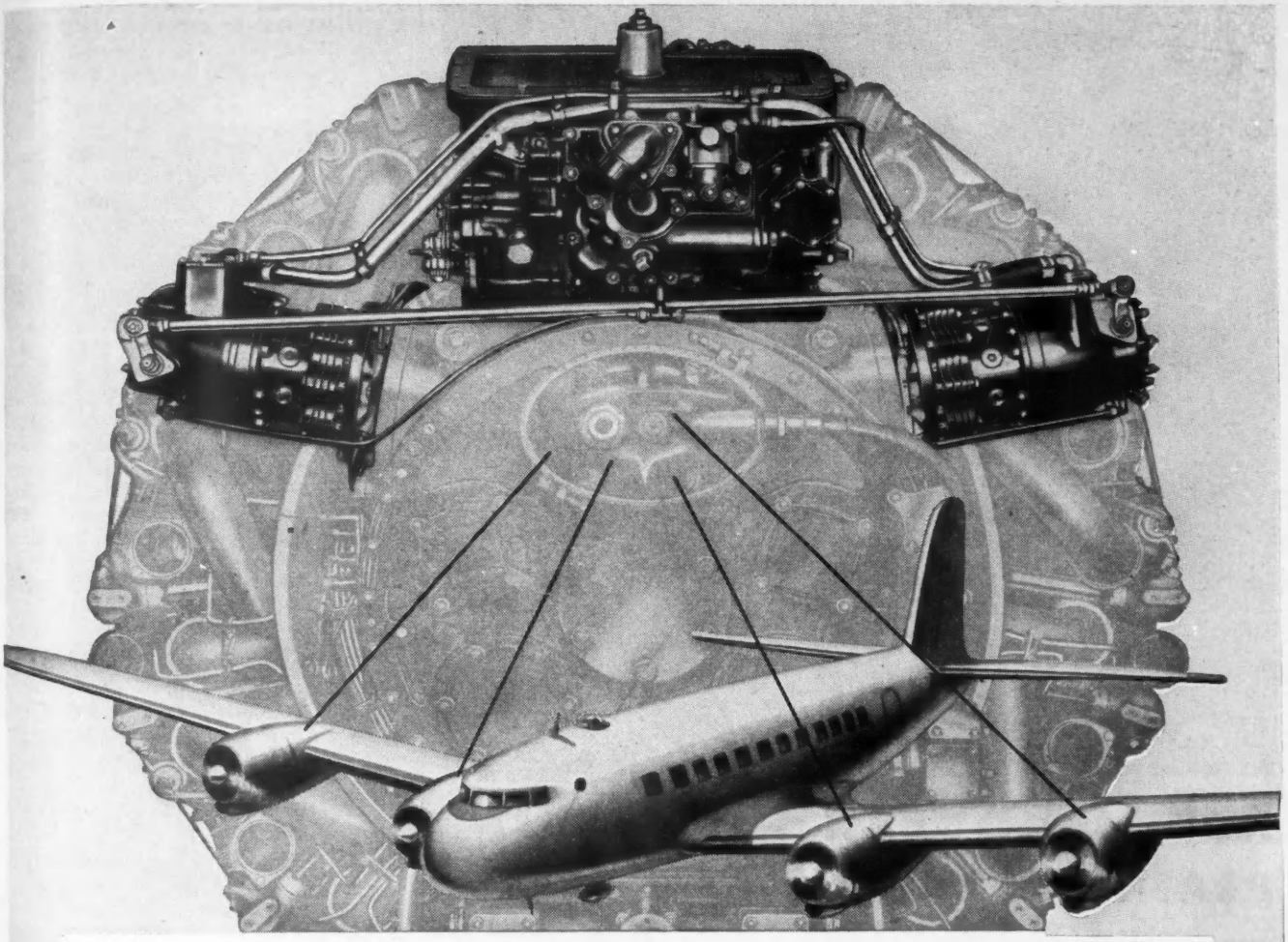
The 1947 edition of Automobile Facts and Figures, compilation of statistical data of interest to the automotive industry published by Automobile Manufacturers Association, is expected to be off the press in late March or early April. The new edition is said to include considerable new information not found in previous numbers. Much data not available in war time editions of Facts and Figures will appear for the first time. The new edition of Motor Truck Facts dealing with information to the trucking industry also will appear at about the same time.

Consolidated-Vultee Has Large Order Backlog of Convair-240's

More than 150 Convair-240's have been ordered according to the Consolidated-Vultee's annual report which was recently issued. Four domestic and three foreign airlines have placed orders for the Convair which is a twin-engine, 300-mph commercial transport fitted with an air-conditioned pressurized cabin and accommodating 40 passengers.

Last Legislative Bar Removed From Two-Deck Haulaway Path

With the signing of a legislative act in West Virginia last month, all states in the Union now permit the use of double deck automotive haulaway trailers. The West Virginia law legalizes the use of such trailer units and removes the last barrier in the U. S. to their use.



Bendix Direct Fuel Injection

CUTS COSTS—ADDS PAYLOAD—ADDS CRUISING RANGE

The Bendix* Fuel Injection System adds so much to comfort, safety, and operating efficiency that it merits the attention of every airline executive.

Engines start more quickly, with less backfiring and shorter warm-ups. Each cylinder receives the precise fuel charge, and there is no manifold condensation. Intake passages carry air only, greatly reducing fire hazards. Since the fuel is vaporized within the cylinder there is no "refrigeration" of intake manifold or carburetor, and consequently no icing from fuel vaporization. Fuel distribution is exactly equalized between cylinders, permitting leaner mixtures and major savings in fuel. Precision-controlled fuel distribution also means smoother operation, longer engine life, and less noise and vibration to annoy passengers. Altitude performance is improved, with more engine power and better acceleration. Engine stalls or faltering due to fuel feed failure are eliminated because fuel feed is unaffected by gravity or inertia effects in climbs, banks or dives.

Performance records, as shown below, make it clear that this Bendix development is one of the most important aviation advancements in years.

Bendix Products Division, Bendix Aviation Corporation, South Bend 20, Ind.

AIRLINES REPORT . . .

. . . Estimates of fuel savings reach 6 per cent—increased payload of 900 pounds!

. . . Increased cruising speed of 20 M.P.H. . . . Less vibration and noise.

. . . Smoother engine operation, lowered engine maintenance costs!

. . . More engine power and acceleration, and improved altitude performance!

PRODUCT OF Bendix AVIATION CORPORATION

DIRECT INJECTION SYSTEM
★
FUEL METERING DEVICES
★
STROMBERG* INJECTION CARBURETORS
★
SHOCK ABSORBING STRUTS

Bendix
PRODUCTS
DIVISION

TURBO-JET AND TURBO-PROPELLER ENGINE FUEL SYSTEMS
★
AIRPLANE WHEELS AND BRAKES
★
HYDRAULIC EQUIPMENT

*REG. U.S. PAT. OFF.

Publications Avavilable

(*Continued from page* 176)

Solvents, presents in detail the important properties, specifications, uses and constant boiling mixtures of nine glycol-ethers. In chart form it gives information on physical constants, comparative evaporation rates, various solubilities, etc.

71—Plastics Bulletin

E. I. duPont de Nemours & Co., Inc., Plastics Dept.—An attractive color-illustrated publication, The Plastics Bulletin, describing new developments and applications in plastics produced by duPont is available. It gives thorough coverage of origination, new developments and improvements of duPont plastics and provides complete descriptions and illustrations of interesting finished products manufactured by customer companies.

72—FWD M Series Trucks

The Four Wheel Drive Auto Co.—Bulletin No. 461 describes and illustrates ten and twelve ton FWD trucks, built for heavy duty service.

73—Oil Purification

The Texas Co.—The January issue of Lubrication contains an interesting article entitled Oil Purification, Filtration and Reclamation. Sectional views of various types of purifiers, filters, etc. are included. The center spread in the booklet is devoted to drawings showing typical lubricating oil reconditioning systems.

74—Air Filters

American Air Filter Co.—A new 23-page booklet discusses various types of industrial dust problems and typical applications of AAF air filters. A chart of size and characteristics of air-borne solids and sections dealing with atmospheric dust, industrial air conditioning, ventilation, drying operations, product finishing, etc. is included.

75—Industrial Wire Cloth

Michigan Wire Cloth Co.—A new catalog contains complete specification tables of industrial wire cloth. One section is devoted to general information, terminology and technical data. A tabulation of characteristics of metal filter cloth is included and a guide or check list covering strainer design.

Advertising Notes

The Tucker Corp., Chicago, has announced the appointment of Roy S. Durstine, Inc., as the advertising agency for the new Tucker automobile.

The Midget Motor Car Mfg. Corp., Buffalo, N. Y., has appointed Greenfield-Lippman Advertising, Buffalo, as its advertising agency.

. . . with PERMITE Permanent Mold ALUMINUM ALLOY CASTINGS

There's less "dead" metal to remove when aluminum alloy castings are made by the Permite permanent mold process. Precision tolerances as close as ±.010" provide consistent uniformity in duplication of design and freedom from dimensional variations.

As a result, machining operations are speeded up. You save time, labor and money . . . get faster, lower-cost production, higher profits.

Other profitable savings are possible, too, thru the greater tensile strength of Permite Permanent Mold Castings, which often permits thinner cross-sections and a resulting reduction in the weight and cost of your castings.

Permite Engineers and Foundrymen place at your service their twenty-seven years of experience in working with aluminum alloys. Let them show you how Permite Permanent Mold Castings can save you money. Submit your blueprints and specifications, without obligation.

PERMITE

ALUMINUM INDUSTRIES, INC.

CINCINNATI 25, OHIO

DETROIT: 809 New Center Building. NEW YORK: 9 Rockefeller Plaza. CHICAGO: 64 E. Jackson Boulevard. ATLANTA: 612 Grant Building

ALUMINUM PERMANENT MOLD, SAND and DIE CASTINGS...HARDENED, GROUND and FORGED STEEL PARTS

DANLY PRESSES

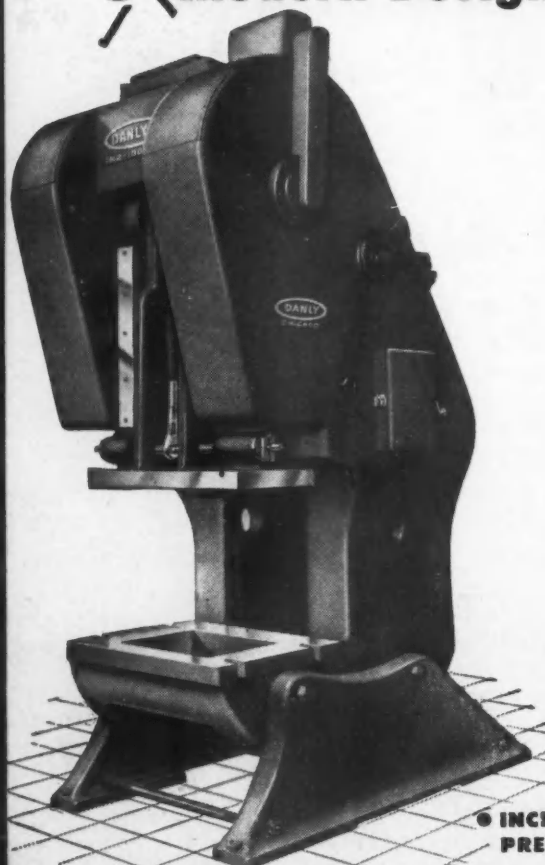
1 Rugged Construction

2 Mechanical Accuracy

3 Pressure Lubrication

4 Air-Friction Clutch

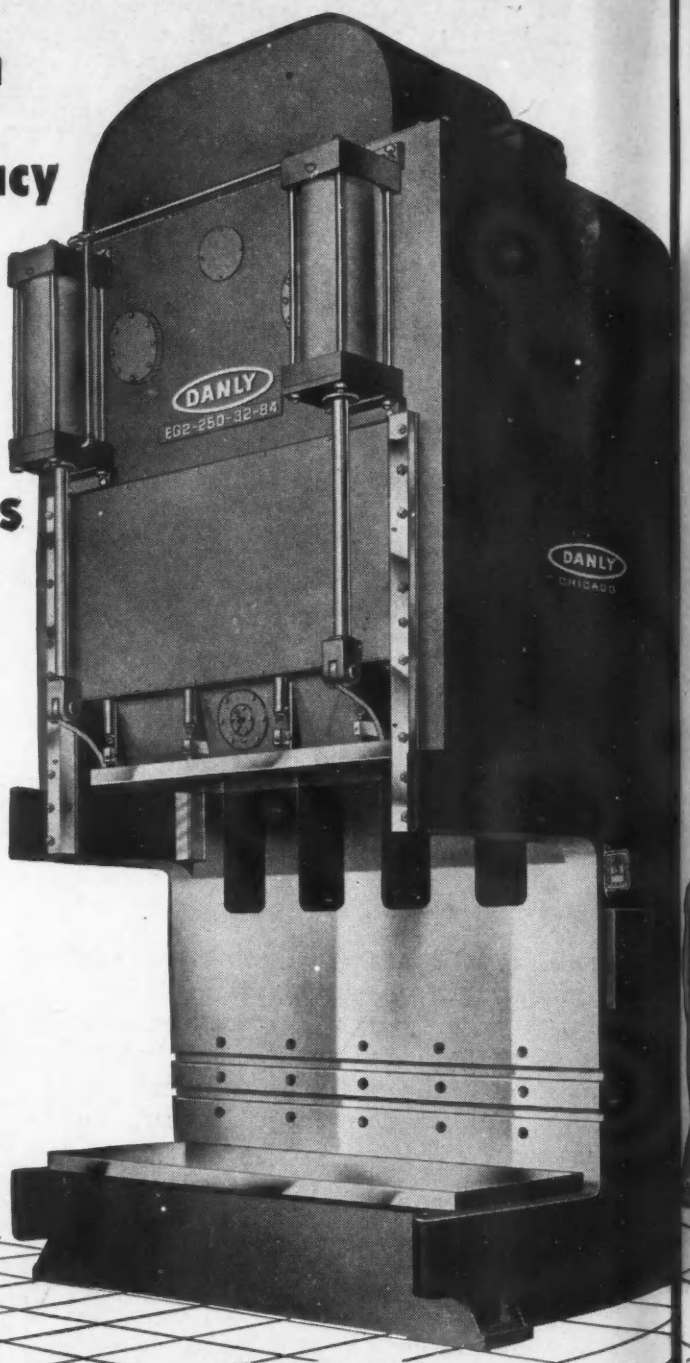
5 Modern Design Features



● INCLINABLE PRESS

This 100-ton, eccentric gear, Inclinable Press, has a unit frame of rugged one-piece all-steel construction. Extra long gibs and two suspension points—insure even pressure along the full length of the stroke, make for accurate alignment on large or progressive dies.

This press has an 8" stroke—operates 40 strokes per minute. Adjustment of slide—4" by hand. Bed area is 31" x 40"—designed to be equipped with air cushion if desired. Pivot point is so arranged that the center of the bed is not elevated when press is inclined. Distance floor to bed—33". Shut Height—19".

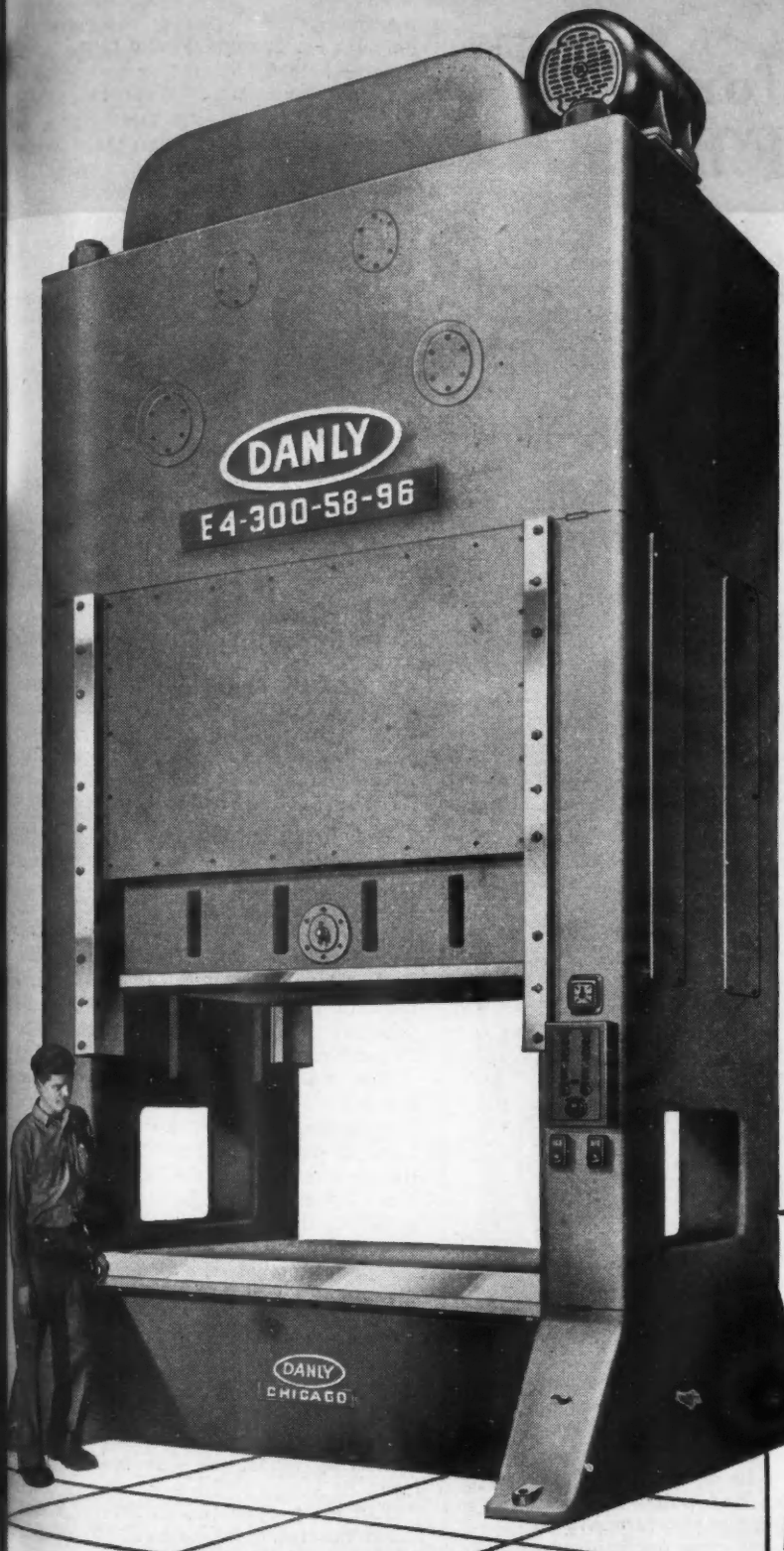


● GAP-FRAME PRESS

The 250-ton, 2-Point Eccentric Gear Gap-Frame Press, *shown above* is of all steel Danlyweld construction. Intermediate *continuous* structural members extend up through the back of the frame reducing deflection throughout the entire length of the bed. Gearing and driving members are completely enclosed within the frame.

This press has a 14" stroke—operates at 20 strokes per minute. Bed area is 32" x 84". Shut height—54".

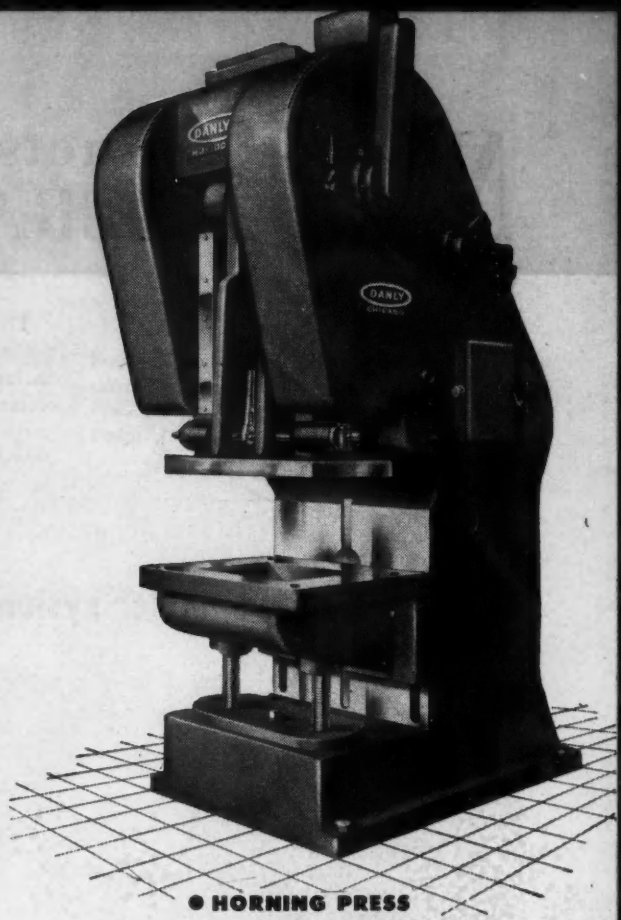
.THE PRESS for MODERN PRODUCTION.



● 4-POINT STRAIGHT-SIDE PRESS

Compact, enclosed construction keynotes the design of the 300-ton Straight-Side Press, *shown above*. Gears and driving members are completely enclosed within the frame.

This press has eccentrics cut on the four main gears and 4 Suspension Points—Extra Long Gibs. Bed area is 58″ x 96″. Stroke is 18″—Double geared to operate at 18 strokes per minute. Adjustments of Slide—12″. Shut height—54″. Air-Friction Clutch, Electric Stroke Indicator, and Push-Button Control—Motor Adjustment of Slide, are standard equipment on this model.



● HORNING PRESS

The 100-ton Eccentric Gear, Horning Press, *shown above*, has a one-piece all-steel frame. Extra-long gibs and 2 suspension points—unusual features in a press of this type and size, make for accurate alignment on large or progressive dies.

This press has an 8″ stroke—operates at 40 strokes per minute. Adjustment of slide—4″, by hand. Shut height with knee adjustment down, slide adjustment up—20″; adjustment of knee—10″. Shut height with knee removed—39″.

DANLY
MACHINE SPECIALTIES
INC.

●

2100 SOUTH 52nd AVENUE
CHICAGO 50, ILLINOIS

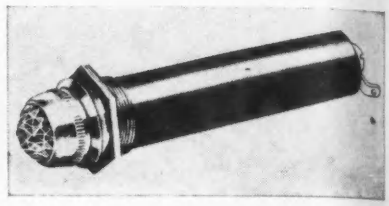
NEW Products for AIRCRAFT

Flashing Signal Panel Lamp

A new type flashing signal panel lamp for warning signals, the "Blink-O-Light," has been brought out by Jersey Technical Enterprises, 45 Clinton St., Newark 2, N. J.

This device is a single-unit assembly designed especially for aircraft application. While it contains all of the elements necessary, including the automatic flashing mechanism, its length is only slightly over 3½ in. It has a maximum diameter of ¾ in. and weighs only 1¼ oz. It requires one 11/16 in. diameter hole for mounting and a single terminal connection. When mounted it does not require any more space on the front of the panel than the ordinary panel lamp. Standard lamp bulbs are used and are readily accessible.

This attention-aresting flashing signal can be used to most advantage in conjunction with any condition responsive switch for warning of abnormal or dangerous conditions of temperature, pressure, liquid level, etc. Standard models are available for 6, 12, and 28 volts and can also be adapted for 115 V alternating current. These units can be arranged with "push to test" buttons for operation checking.



Blink-O-Light

Airplane Reading Lamp

Newest thing in lamps is a small, light-weight, reflectorized airplane reading lamp, a peace-time version of the war-time gunsight lamp, just introduced as the G-E 1385 by the General Electric Lamp Department, Nela Park, Cleveland, Ohio. It will be first used in the Boeing Stratocruiser, the postwar "Big Brother" of the B-29 Superfortress.

For practically the same wattage as lamps previously used as aircraft reading lamps, the new 20-watt lamp is said to provide almost ten times the illumination over the reading area. The majority of the light is confined to a 20-in. diameter area three ft. from the lamp and although it avoids a sharp cut off of the beam, the light tapers off rapidly around the edge. This gives light enough to allow one passenger to read without disturbing other passengers. Because the lamp is recessed into the ceiling or above the window, the lighted lamp avoids glare in the eyes of other passengers seated behind the pasenger who is using the light.

The lamp operates on 28 volts and has a maximum outside length of 2⅝ in. Its rated life is 300 hours.

Special Electrical Actuator

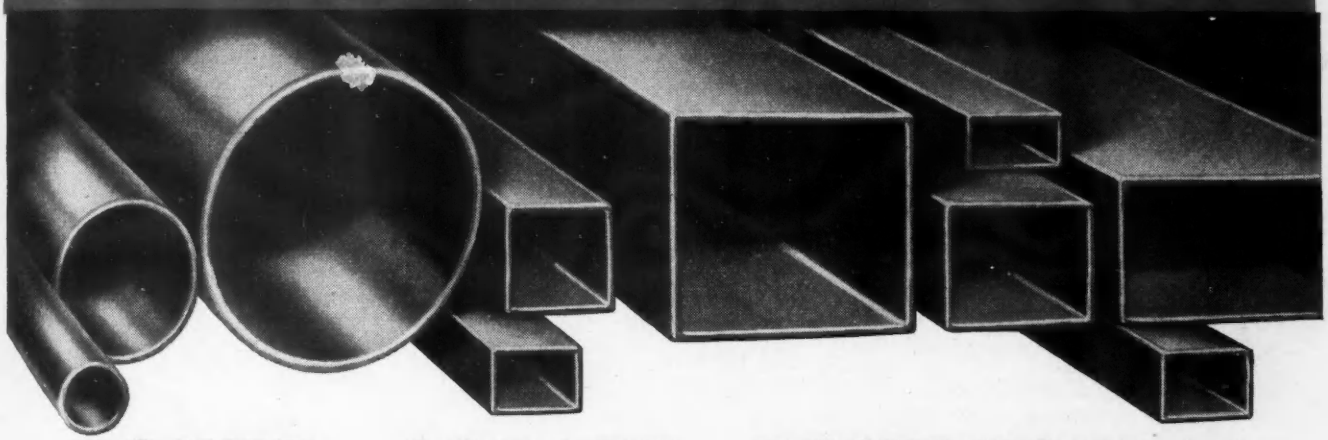
Manufacturers of equipment on which actuating devices are required will be interested in an actuator developed by the Electrical Engineering and Manufacturing Corp., 4606 W. Jefferson Blvd., Los Angeles.

The actuator, a rotary type, is found on a new military aircraft that is still on the secret list. The unit operates the camera hatch doors, providing al-

(*Turn to page* 204, *please*)

Michigan WELDED STEEL TUBING

The Modern Electric Resistance Welded Steel Tube



ROUND ★ SQUARE ★ RECTANGULAR

¼″ to 4″ O.D.
9 to 22 gauge

½″ to 2″ 20 gauge
1″ to 2¾″ 14, 16, 18 gauge

and SPECIAL SHAPES

Michigan Welded Steel Tubing is available in sizes and shapes that make it readily usable in the production of a wide variety of parts.

Whether you form and machine the parts in your plant or order them prefabricated by Michigan, you will find this tubing exceptionally uniform in structure and adapted to reworking by any production process. Michigan welded tubing can be:

Engineering advice and technical help in the selection of tubing best suited to your needs. Address your inquiries to:

Michigan STEEL TUBE PRODUCTS CO.

More Than 25 Years in the Business

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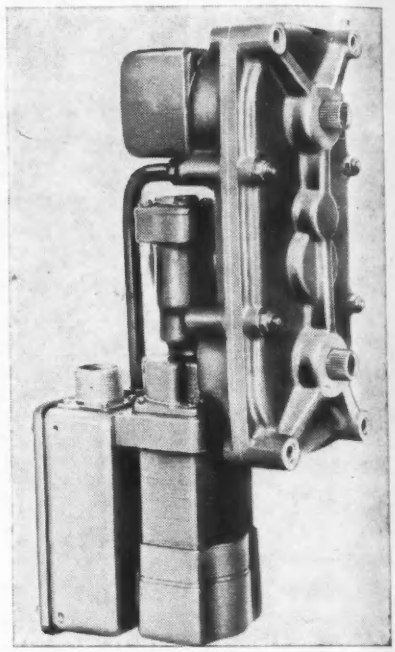
FACTORIES: DETROIT, MICHIGAN • SHELBY, OHIO

DISTRIBUTORS: Steel Sales Corp., Detroit, Chicago, St. Louis, Milwaukee and Minneapolis—Miller Steel Co., Inc., Hillside, N. J.—C. L. Hyland-Dayton, Ohio—Dirks & Company, Portland, Oregon—James J. Shannon, Milton, Mass.—Service Steel Co., Los Angeles, Calif.—American Tubular & Steel Products Co., Pittsburgh, Pa.—Strong, Carlisle & Hammond Co., Cleveland, Ohio—C. A. Russell, Inc., Houston, Texas—Drummond, McCall & Co., Ltd., Toronto, Canada.

most instantaneous opening and closing. This is achieved through development of torque of 275 lb.-in. on each of two shafts in a one second operating cycle by a motor with a peak load output of only .55 hp.

Extreme compactness, close integration of components, and minimum weight were dictated by the aircraft application. The unit includes a 28-volt d-c motor, magnetic clutch and brake, travel limit switches, and radio noise interference filter. Housings are magnesium castings. Total weight is 7¾ lb. Overall length is 13 in. with maximum height of 6 5/16 in.



Actuator manufactured by Electrical Engineering and Manufacturing Corp.

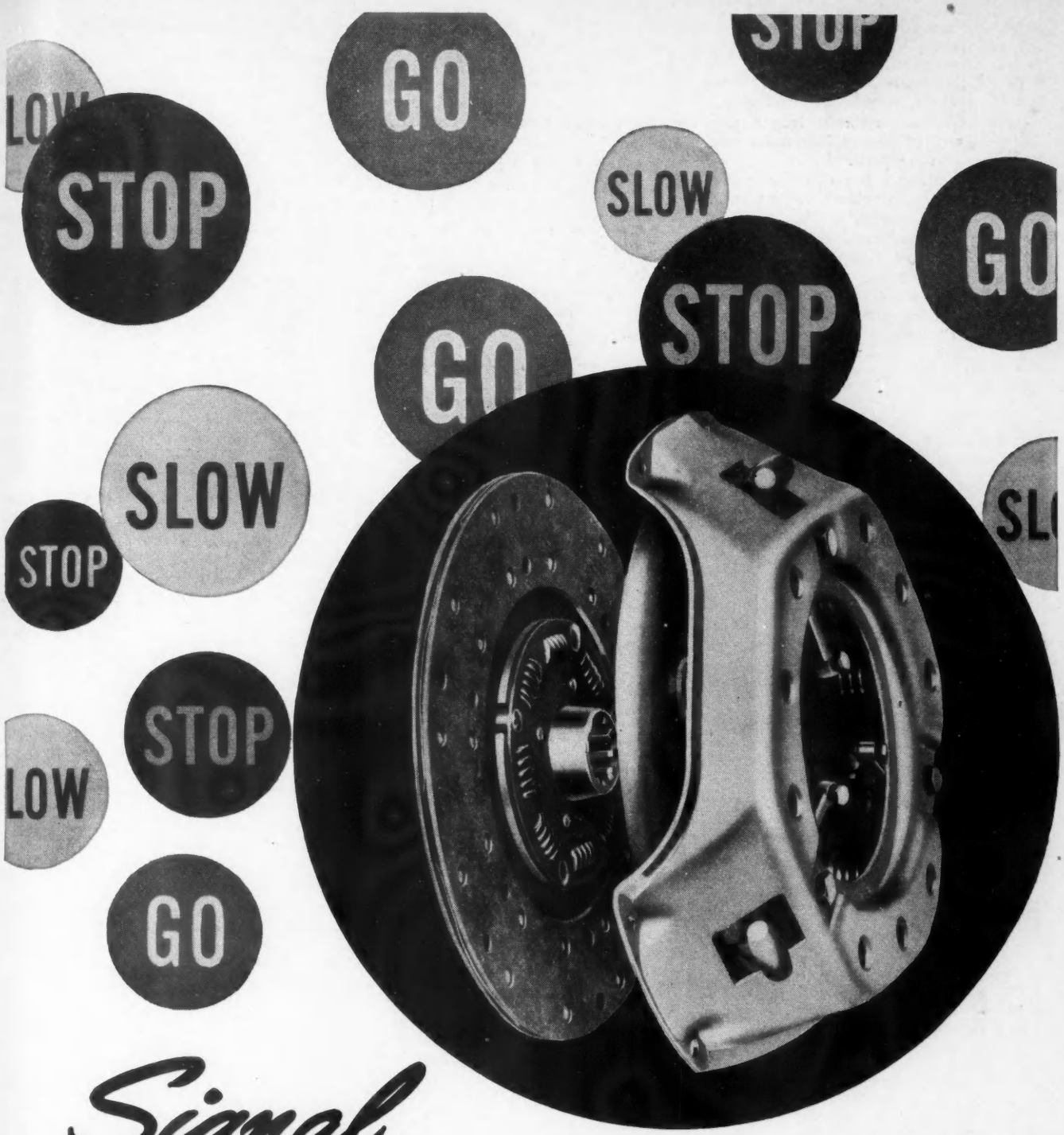
Propeller De-Icing System

A propeller de-icing system which is said to remove ice for an unlimited time under the most severe weather conditions has been announced by Hamilton Standard Propellers, division United Aircraft Corp. The system utilizes electrical heat and the propeller's centrifugal force to remove ice formations.

Hamilton Standard's new electrical de-icing system is used internally with the hollow steel blade and externally with duralumin blades. The hollow steel blade is de-iced by current applied to special alloy heater wires cemented to the inside surface of the blade's leading edge.

For duralumin blades the heating element consists of three layers of different rubber types mounted externally on the leading edge. The middle layer of conductive rubber by its electrical resistance supplies the heat, the inner layer is selected for good cementing and thermal insulation characteristics, and the outer layer is se-

(*Turn to page* 206, *please*)



Signal Performance

Swiftly and constantly, traffic lights change. The driver must have instant, effortless, *sure* clutch operation.

Long clutches have easy, positive action and high torque capacity. Since 1922, they have been standard equipment on millions of cars, trucks, buses, and tractors.

LONG

CLUTCHES • RADIATORS • OIL COOLERS

LONG MANUFACTURING DIVISION
BORG-WARNER CORPORATION
Detroit 12, and Windsor

lected for smooth finish and high erosion resistance. Total thickness of the pad is approximately 1/10 in.

In both blade installations, the heated section covers approximately 75 per cent of the blade length and 20 per cent of the width extending from the leading edge.

Electric current for de-icing is derived from the airplane battery and generator and carried to the propeller by a slip-ring and brush system. Wires conduct the current to the heating elements on the blades.

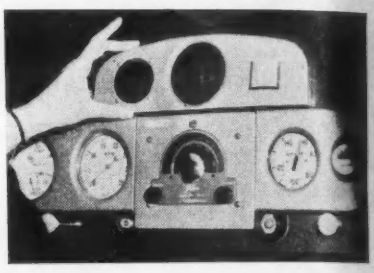
The power supply is controlled by a timing device mounted in the airplane which "cycles" current to each propeller in turn, thus minimizing the load on the airplane's electrical system. In this way, heat can be applied to each propeller for a 20-sec. interval and shut off for 60 sec. under icing conditions at moderate air temperatures.

To cope with icing at very low temperatures, a double-throw switch in the cockpit permits the pilot to select a second cycle of 60 sec. operation and 180 sec. "off." The timer can also be internally adjusted to meet varying time requirements for conditions prevailing on the routes of a particular airline.

Stall Warning Indicator

An aircraft instrument that is said to prevent the possibility of a pilot inadvertently stalling his plane is manufactured by the Safe Flight Instrument Corp., White Plains, N. Y.

The warning device which is mounted on the instrument panel is actuated by a small tab of metal or "vane" protruding through the leading edge of the wing. Its operation is based on the aerodynamic fact that a wing



Safe Flight stall warning indicator

cuts the air so that part of the air passes above the wing and the other part passes below. This point of division in normal flight is just below the extreme forward part of the leading edge. The vane of the Safe Flight Indicator is located in such a way that, in normal flight, the flow keeps an electric circuit open.

As the wing approaches the stall, however, the division point on the wing moves downward below the vane, causing the vane to flip up. This closes the electric circuit and actuates the light and horn in the cabin. Even if the pilot is wearing earphones, he will not fail to notice the warning since the signal will also be picked up by the radio.

The installation for any given airplane is so adjusted that the warning of an impending stall goes off at a point approximately 10 per cent above the critical speed at which the plane might stall or spin.

New Magnetic Alloy

A new 35 per cent cobalt — 64 per cent iron — 1 per cent chromium alloy that carries more magnetism than any other alloy practical for use in motors and generators and is tough enough to withstand intense vibration has been developed by the Westinghouse Research Laboratories. The new alloy, "Hiperco" is said to make possible compact electric motors and generators an estimated 10 per cent smaller and lighter than those of equal power now built for aircraft. This is so, because the high magnetic saturation point of Hiperco will permit the design of motors with less metal for the same power, or more power from the same amount of metal.

The combination of 35 per cent cobalt with iron gives the highest magnetic saturation point of any known metallic material, and the 1 per cent chromium is added to make the alloy workable.

SHULER AXLES

Almost everybody knows of "Shuler Axle" as a highly-competent manufacturer of fine, heavy-duty trailer axles — but some are not familiar with the *completeness* of the Shuler line. If you are looking for a good source for any of the items listed below, we invite your correspondence. Shuler maintains an experienced engineering staff, and complete die, forge and machine shops. We have the facilities and the *will* to serve you promptly and well. Drop us a line today.

COMMERCIAL TRAILER AXLES — One Piece Tubular and Square

Capacities in one-piece tubular: 8,000, 11,000, 13,000, 17,000, 18,000 and 25,000 lbs.

Capacities in one-piece square: 7,500, 10,000, 12,000, 15,000, 18,000, and 25,000 lbs.

Track Sizes: Standard and special track sizes available in all models.

Brake Sizes: 4″, 5″, 6″, 7″, and 8″ — Air or Vacuum.

Hubs: for all sizes of Budd 6 and 10 Stud, Chevrolet, Ford or Motor Wheels. Axles provided for Dayton and Erie Cast Wheels. All sizes of axles available for Tandem Units.

Special West Coast Axles (engineered and developed for West Coast applications).

MACHINERY TRAILER AXLES — With Trunnion Mounting

Capacities: 11,000, 13,000, 16,000, 18,000 and 25,000 lbs. per axle. *Brake Sizes:* 12-1/4 x 5 for 15″ wheels.

Hubs: for 5 and 6 Stud Budd or Motor Wheels. Axles provided for Dayton and Erie Cast Wheels.

FRONT AXLES

For heavy-duty trucks and off-the-highway equipment.

Capacities and specifications available on request.

HOUSE TRAILER AND FARM WAGON AXLES

Front-knuckle steer and rear axles in 2,000, 3,000 and 4,000 lbs. per axle capacities, with or without mechanical brakes and wheels.

BRAKES AND DRUMS

Mechanical, for vacuum or air actuation.

Capacities and specifications to meet every need.

AUTOMOTIVE SPECIALTIES

Fifth-Wheel King Pins—Carbon or Alloy Steel, standard SAE size for bolting, riveting or welding. . . . Stub Spindles in stock and special sizes for every application. . . . Tow Bar Hitches (Lunette Eyes). . . . Forged Spring Seats. . . . Air and Vacuum Diaphragm Brackets. . . . Miscellaneous Forgings for the Truck and Trailer Industry. . . . All these and others are available from Shuler. *Write us today for sizes, specifications and prices.*

SHULER AXLE CO., Incorporated . . LOUISVILLE, KENTUCKY

Export Division: 38 Pearl St., New York, N. Y. ● West Coast Warehouse: 1280 45th St., Oakland, Cal. ● Detroit Office: 8424 Woodward Ave.

New *Setup for* Patent Cross-Licensing

By Leonard Westrate

THE Automobile Manufacturers Association currently is setting up the twelfth extension of its famous Patents Cross-Licensing Agreement under which all automotive manufacturers signing the agreement authorize AMA to grant dicenses to any vehicle manufacturer who will enter the agreement. Historically, the arrangement goes back to 1915 when the first agreement was entered into for a 10-year period. In 1925, it was extended five years, but did not include new patents to be acquired during that time. The agreement was extended again in 1930 to cover patents in the 1925-1930 period, was again extended for five years in 1935, and subsequently for varying periods for six months to one year to cover the period through December, 1946. However, none of the extensions covered patents beyond 1930.

The new agreement now being completed, which runs to Jan. 1, 1952, will cover patents issued prior to Jan. 1, 1940. In reality, only patents covered in the agreement will be those issued between 1930 and 1940, since patent rights expire after 17 years and any issued prior to 1930 already have expired. Actually, since it takes about three years to obtain a patent, inventions covered by the agreement probably would include those developed from 1927 to 1937.

In essence, the Cross-Licensing Agreement, while it enables each signatory to retain ownership of his patents, authorizes AMA to license any other signer to make, use, sell, and have made without royalty payment any or all of the patents under the agreement. In general, patents covered by the agreement include any device used in, or in connection with, motor vehicles or in connection with their manufacture. Excluded are patents issued after Jan. 1, 1940, other specified classes of patents which are of particular use in adapting such vehicles as trucks, buses, and tractors to special uses and those which are not generally applicable or useful to any type of vehicle used for private passenger use.

All esthetic design (or style) inventions also are not covered. However, it is mandatory for signers of the agreement to make available all of their patents that qualify for cross-licensing under the agreement. In addition, there is nothing to prohibit individual manufacturers to license other vehicle builders to use patents not covered in the cross licensing agreement.

It is acknowledged by all manufacturers that any one company that has expended considerable money for research and development of a new product is entitled to any sales advantage that accrues from exclusive ownership. That is why the present agreement covers patents only up to Jan. 1, 1940. It is felt that any exclusive patents held up to that time have since been capitalized on sufficiently to warrant

(*Turn to page* 210, *please*)

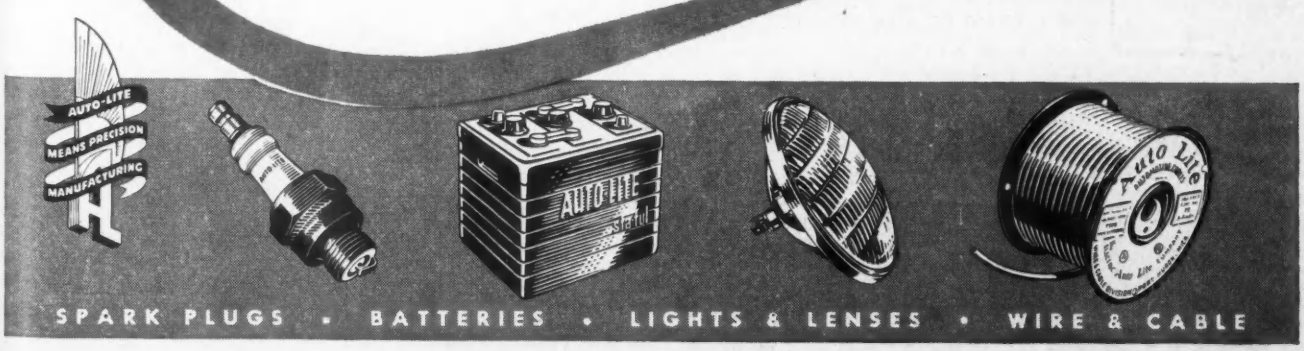
Switch to AUTO-LITE electrical systems

● It is the proved performance of Auto-Lite electrical systems on the highways which has made Auto-Lite the world's largest independent manufacturer of automotive electrical equipment. The Auto-Lite reputation for quality and reliability for more than 36 years has made Auto-Lite products original factory equipment on many of America's finest cars, trucks and tractors . . . Money cannot buy better electrical systems.

Money cannot buy better electrical systems

THE ELECTRIC AUTO-LITE COMPANY

Toledo 1, Ohio



SPARK PLUGS • BATTERIES • LIGHTS & LENSES • WIRE & CABLE

Tune in the Auto-Lite Radio Show starring Dick Haymes, Thursdays, 9:00 P.M.—E.T. on CBS.

their licensing to the industry in general. The reserving of newest inventions for sales promotion advantage stimulates development. It also overcomes the possibility of objections from stockholders who might raise a serious question if a heavy expenditure were made for a new development and the fruits of the company's expense and effort were to be made immediately available to competitors without first enjoying the advantage of exclusive ownership for a reasonable period.

Participation in the Cross-Licensing Agreement is entirely voluntary and even companies with no patents are eligible to membership. Previously only two major automobile manufacturers, Packard and Ford, have remained outside the agreement. Packard has owned many patents and has been very generous in licensing other manufacturers to use them at a nominal charge. Ford traditionally has been opposed to making a charge for use of his patents and has been quite liberal in allowing competitors to use certain of his patents without cost. There is no indication as yet as to whether Packard and Ford will come into the agreement, but it is thought that they likely may do so, if not now, at a later date. Kaiser-Frazer Corp. also is understod to be ready to participate. Although a new company, it probably has some Graham-Paige patents acquired through taking over G-P automotive assets recently.

It will not be known for some time yet what new inventions will be included in the present extension of the agreement, since participants have until May 1 to sign up and list their patents.

New 3500 Hp Rolls-Royce Engine Has Sleeve Valves

Rolls-Royce Ltd., Great Britain, has announced details of its new 3500 hp Eagle engine, which has undergone its preliminary flight trials in a plane produced by Westland Aircraft. This engine is an H-type with four rows of six cylinders in line and has sleeve valves. It is liquid cooled and is equipped with a two-stage supercharger and contrarotating reduction gear, developed by the company for its Merlin and Griffon engines. After-coolers are placed between the supercharger outlets and the induction manifolds of each cylinder block. The shunt cooling system has been adopted together with an integral header tank incorporated with the forward end of the top of the crankcase. A fuel injection system is used, with the injection pump located on the lower half crankcase, fuel being discharged into the air stream in the supercharger. Dual ignition is provided by two B.T.H. waterproofed magnetos mounted on each side of the reduction gear casing. The housing of the reduction gearing for the Rotol contra-rotating, eight-bladed propellers has been arranged to give minimum powerplant drag.

NEW Products

Oil Bath Air Cleaner

Bendix - Westinghouse Automotive Air Brake Co., Elyria, Ohio, offers a new oil bath air cleaner for optional use with all current types of Bendix-Westinghouse air compressors on air braked vehicles.

Combining all the qualities of the standard curled hair type strainer, the new oil bath air cleaner, as its name implies, adds an oil bath to its effectiveness.

The design of this unit is such that air entering the compressor must reverse its direction immediately above an oil bath and then pass through curled hair, packed in the inner cartridge, before it can enter the intake manifold.

Bendix-Westinghouse oil bath air cleaner

Four in. long, three in. wide, and five in. high, this device features simple construction, easy application, and almost negligible attention to keep it at peak performance.

NoSPIN Differentials

Detroit Automotive Products Corp., Detroit 13, Mich., is now in production and is supplying its customers with 28 models of its NoSPIN differential in four basic sizes, series "C", "G", "J" and the new "E."

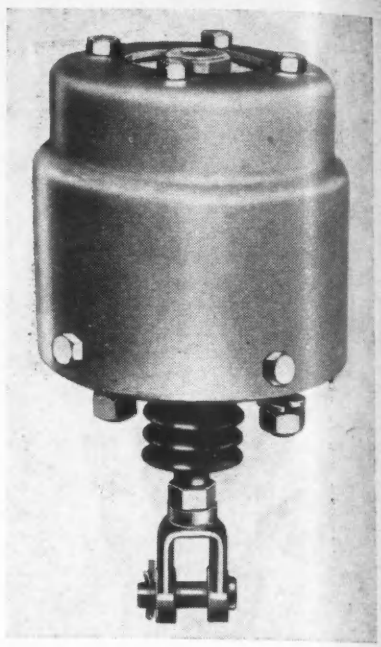
Detroit Automotive is making available at this time the new series "E" NoSPIN differentials for two-speed axles of the Eaton 1350 series. These differentials can now be installed in the two-speed axles of such trucks as the Ford 2-ton, Dodge WFA and WHA, Fargo FK4 and FK6, International KS5 and KS6, Federal 15K and 18K, GMC models EC and EF, series 300 and 350, Diamond T models 404, 409, 409SC, R-950, and Canadian Chevrolet Maple Leaf.

Latest additional models being released include the series "J" NoSPIN differentials for several popular truck models including: Dodge WF and WH, and Fargo FK4 and FK6 trucks all equipped with single axles, and Chevrolet 2-ton trucks having two-speed axles.

The Rotochamber, a New Bendix-Westinghouse Product

Embodying all the better features of the brake chamber and brake cylinder, the new Bendix-Westinghouse Rotochamber, produced by Bendix-Westinghouse Automotive Air Brake Co., Elyria, Ohio, is unique in

(*Turn to page* 216, *please*)



Bendix-Westinghouse Rotochamber

its design and construction. Considerably smaller in diameter than a brake chamber of like capacity, it produces the same output force which is constant throughout the entire piston stroke. Although the Rotochamber has the appearance of a cylinder, its power is derived from a rolling type rubber diaphragm which eliminates packing cup leakage and friction problems. The Rotochamber requires no lubrication and, due to its construction, retains the same simple maintenance features of the brake chamber.

The Rotochamber will be available in the following sizes:

Type	Effective Area Sq In.	Over-all Diameter Inches	Stroke Inches
9	9	4-13/16	2
12	12	5-11/32	2
16	16	5-15/16	2½
20	20	6-15/32	2½
24	24	7-1/32	2½
30	30	7-19/32	3
36	36	8¼	3½
50	50	9½	4

New Method of Attaching Carbide Parts

Carboloy Co., Inc., Roosevelt Pk. Annex, Detroit 32, Mich., has released information concerning a development that makes possible the attachment of carbide parts with screws, studs, etc., in the same manner and with the same ease as similar parts made of softer metals such as steels, bronze, cast iron, aluminum, etc.

The development is expected to expand the potential fields of application for carbides. It is particularly effective where large carbide sections are to be used.

When it is desired to attach carbides by means of studs, screws, etc., the approximate location of the point or points of attachment and the num-

(*Turn to page* 218, *please*)

ENGINEERS, for basic information about Sirvene, you may have a copy of "Engineering with Sirvene," free, by writing SIRVENE DIVISON, Dept. 1317

THIS IS WHERE SIRVENE BEGINS

Sirvene begins in the mind of an engineer . . . it grows from the need for a special pliable part to complete his mechanism. It is specially compounded from oil resisting elastomers in Chicago Rawhide Laboratories to achieve required physical characteristics, then molded to precise design specifications. The finished Sirvene part meets *exactly* the engineer's demand for flexibility or hardness, resistance to temperature extremes, dryness, wear, age, oil, water, or other solvents. Sirvene parts deliver dependable performance under the most difficult operating conditions. For the solution to your pliable parts problem—consider Sirvene *first*.

Sirvene products include diaphragms, boots, gaskets, oil seals, washers, packings, and other special molded mechanical pliables.

SIRVENE

THE SCIENTIFIC COMPOUNDED ELASTOMER

A Product of the Synthetic Rubber Division

CHICAGO RAWHIDE MANUFACTURING CO.

1310 E[illegible]ton Avenue

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Sirvene Engineers are pioneers in the field of scientific compounded elastomers. Since 1929, they have acquired an unequalled background of research, development and manufacturing experience. This unique reservoir of experience is always at your service.

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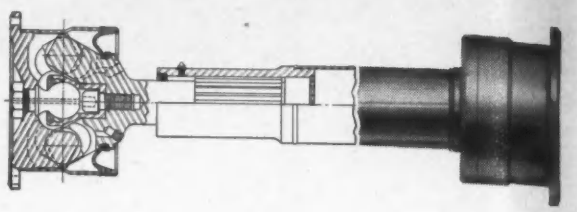
ber of such points are first determined. The carbide part is then provided with machinable "inserts" in those locations. The part may then be drilled and tapped at these points either before shipment from the Carboloy Co., or by the user "on the job."



Geargrind universal joint

Constant Velocity Universal Joint

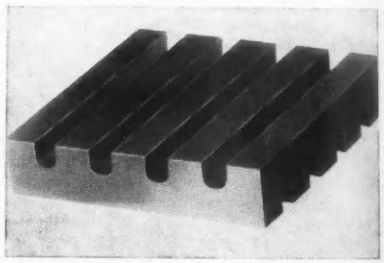
The Gear Grinding Machine Co., 3901 Christopher Ave., Detroit, announces a new type of constant velocity universal joint designed primarily for heavy-duty, high-angle propeller shaft applications on motor buses and trucks. Tests are said to show entire freedom from torsional vibrations at all operating angles and speeds.

In the new Geargrind joint the transmission of torque from driving to driven member is through steel balls, positioned in intersecting race ways. The driving members are positioned by a heavy ball socket in the center, which maintains true concentricity. Oil is retained by a large tube, pressed on one member and connected to the other by means of a neoprene diaphragm. Oil level plugs are provided for checking the oil supply and adding new oil as needed.

For the present this point will be manufactured for heavy-duty operation only. Tooling is nearly completed, with volume production scheduled for April.

Vibration-Absorbing Pad

This utility pad for use under all types of machinery as a vibration absorber and mounting pad, is made by the MB Manufacturing Co., Inc., New Haven, Conn. MB Isomode pads are made of oil-resistant Neoprene. They are said to be effective on all types and sizes of equipment, from typewriters to forging hammers. Standard pads are 18 in. square, 5/16 in. thick, and can be easily cut to any size or shape desired.

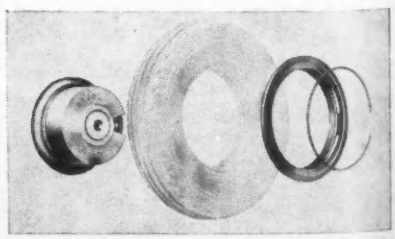


MB Isomode pad

Small Pneumatic Wheel With Detachable Rim

A new type pneumatic wheel with a detachable rim that is said to make it possible to change tires in less than one minute has been developed by the Aerol Co., 1823 E. Washington Blvd., Los Angeles, Calif.

(*Turn to page* 222, *please*)

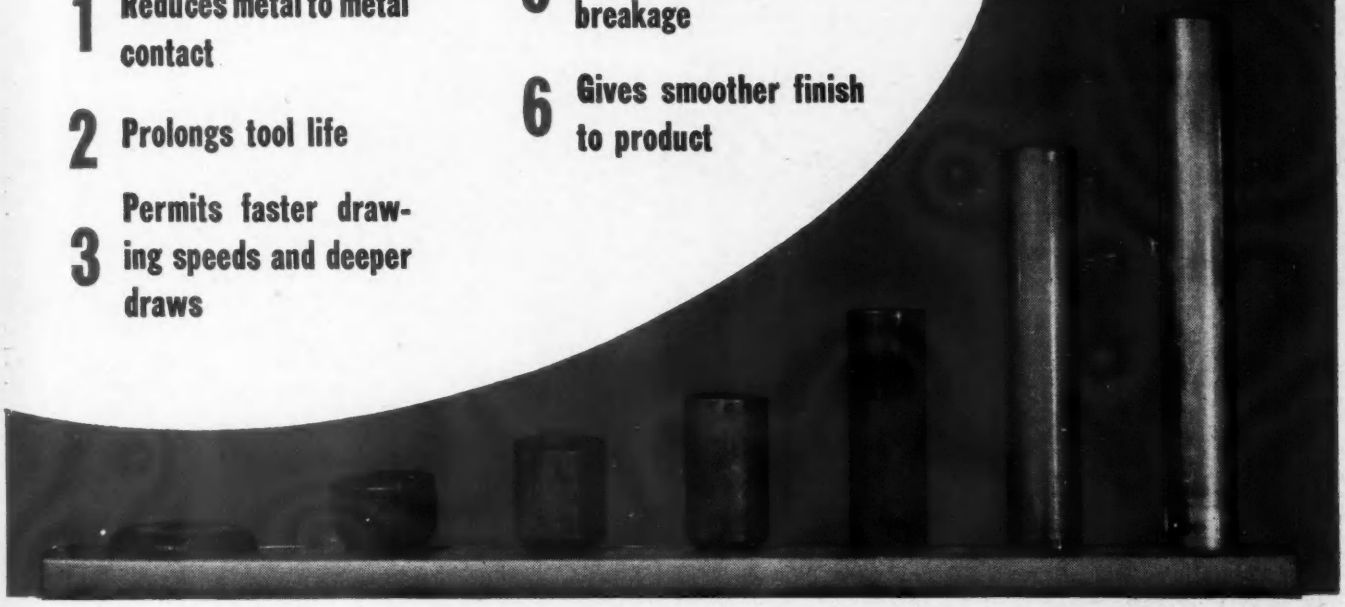


Aerol pneumatic wheel Model No. PW-1642

6 ADVANTAGES

with BONDERIZING AS AN AID IN DRAWING

1. Reduces metal to metal contact
2. Prolongs tool life
3. Permits faster drawing speeds and deeper draws
4. Reduces necessary process anneals
5. Reduces material breakage
6. Gives smoother finish to product



Aluminum cylinders were drawn, with the aid of Bonderizing*, in the steps as shown above. Bonderizing added greatly to the speed, economy and efficiency of the production schedule.

The drawing of steel and aluminum is benefited by Bonderizing in this way: Bonderizing coats the metal with a non-metallic crystalline surface which is integral with the metal itself. These crystals are stretched and crushed in the drawing operation, but remain a cushion between work and tools. Bonderizing has great affinity for oil, holds lubricant through the tremendous pressures of drawing. Faster, more uniform draws result, tearing and scratching is minimized and rejects are reduced, punches and dies last much longer.

Write us for FREE bulletin, "Bonderite As An Aid In Drawing."

PARKER RUST PROOF COMPANY, 2178 East Milwaukee Avenue, Detroit 11, Michigan

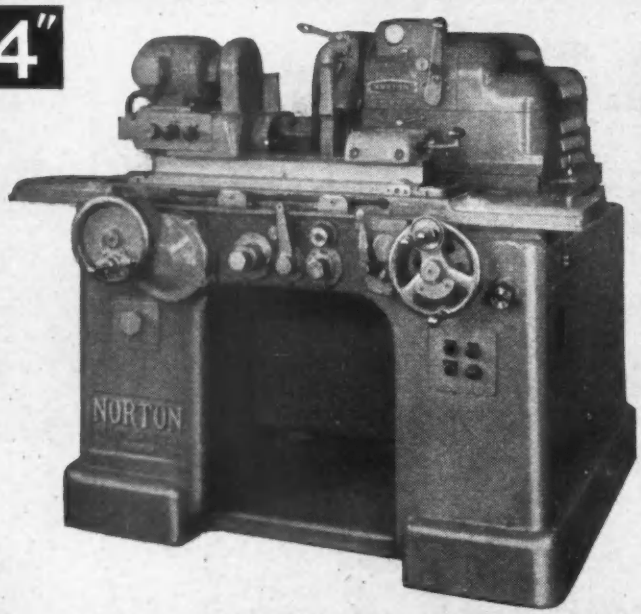
*Bonderite—Reg. U. S. Pat. Off.

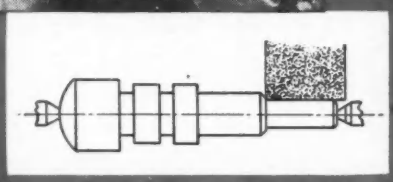
BONDERIZING Holds Paint to Metal | **PARKERIZING** Inhibits Rust | **PARCO LUBRIZING** Retards Wear on Friction Surfaces

PARKER PRODUCTS CONQUER RUST

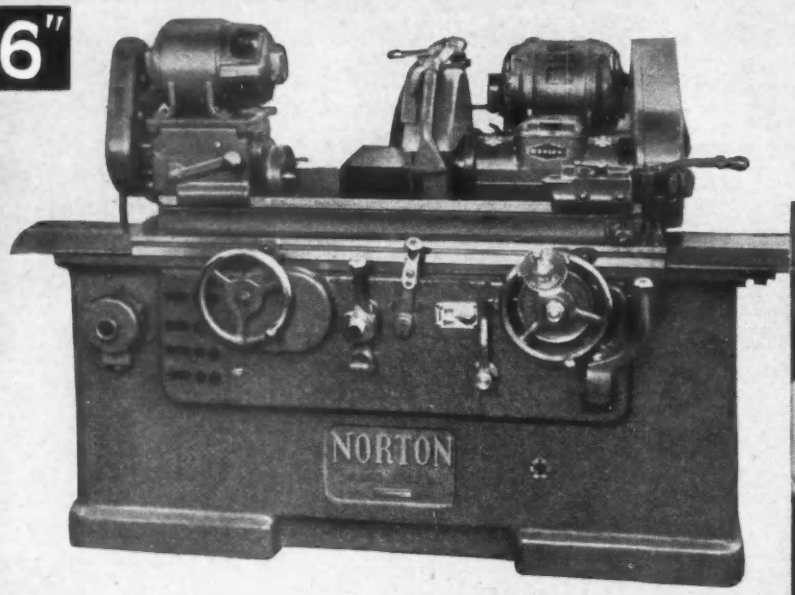
Want to Save on Your Plunge-cut Grinding?

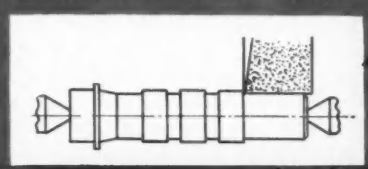
4"

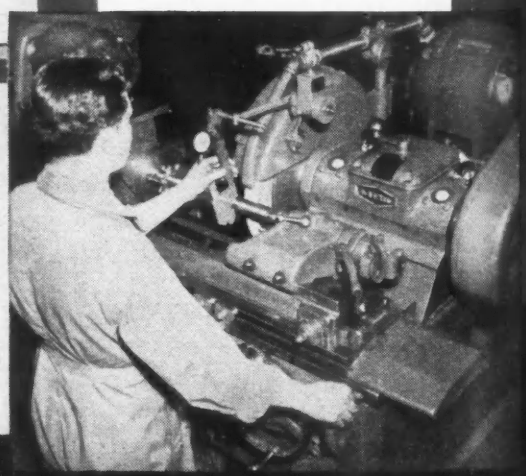




6"







NORTON SEMIAUTOMATICS
Have Real Cost-Reducing Features

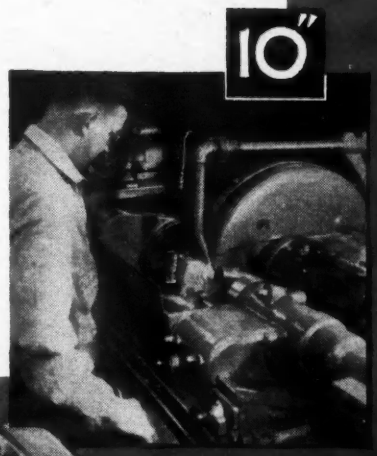
IF you are grinding plunge-cut jobs on plain grinding machines, it will pay you to investigate the NORTON Semiautomatics. Consistent savings are being obtained by users the world over because of cost-reducing features such as —

One lever control — allowing machine to make a complete grinding cycle, stop and be ready for reloading.

Ease of operation — less demands on the operator for handling, sizing and grinding skill.

Enduring accuracy — based on proven, time-tested NORTON design.

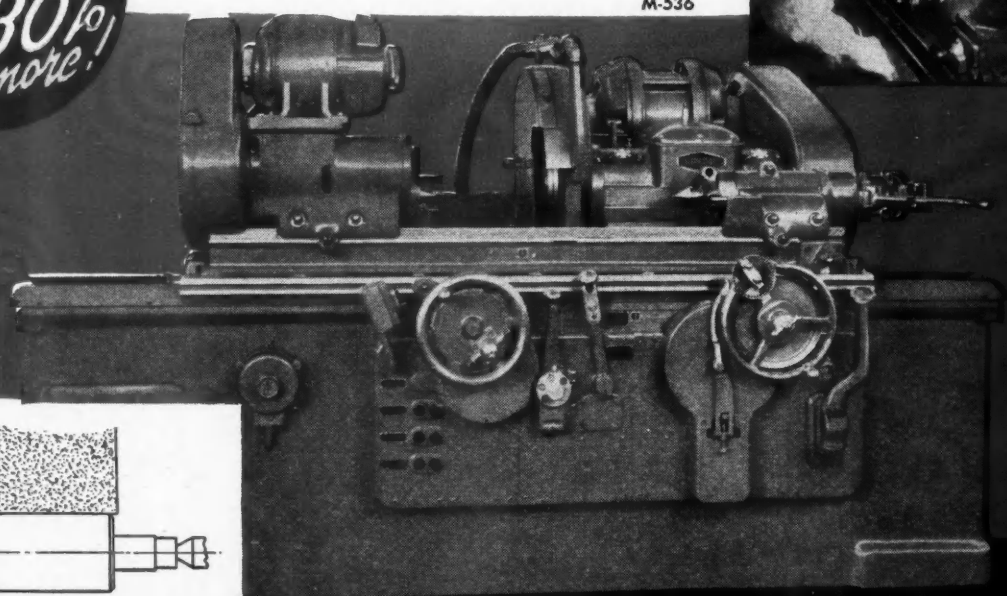
Available in 4", 6" and 10" Type C and 10" and 14" Type LC sizes. Readily adjustable for small-lot production runs. Many combinations of equipment are available and specialized work fixtures can be supplied to meet your production demands.



Grinding Time Cut 30% or more!

NORTON COMPANY, WORCESTER 6, MASS.
New York - Chicago - Detroit - Cleveland - Hartford
Distributors in All Principal Cities

M-536



NORTON GRINDERS
and Lappers

Experiments with the new wheel were begun in an effort to overcome the difficulty in changing tires and tubes on small pneumatic wheels and the result of Aerol's research is their new pneumatic wheel, Model No. PW-1642.

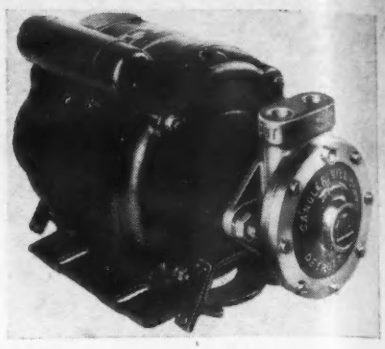
Cast of corrosion-resistant aluminum alloy, the wheel has two sections. One includes the bearing carrying part of the wheel and one rim; the other, the detachable rim which slides into position over the main part of the wheel and is held in place by a special steel spring retainer ring.

Double wall construction is used on Aerol wheels. They are equipped with factory-lubricated Timken tapered roller bearings which do not need lubrication under average conditions during their lifetime.

Aerol pneumatic wheels are available in three axle sizes, 1¼ in., 1 in. and ¾ in. The hub diameter is the same for all wheels, but the ¾-in. bearings allow sufficient stock in the wheel walls for mounting of a sprocket.

Pump for Medium Flow and Pressure Requirements

Candler-Hill Corp., Division of Titan Pump and Engineering Corp., Detroit, Mich., has added another Titan pump to its line of fuel, lubricating and water pumps. This new model, No. 4702, has been developed to handle a variety of liquids in the medium flow and pressure field where quiet, service-free life is a prime requirement. The pumping mechanism components are fabricated from apropriate corrosion-resisting materials to suit the type of liquid pumped.



Titan pump mounted on electric motor

The rotating impeller is designed to "hydraulically float" in the housing. There is no metal-to-metal contact between the rotating and stationary parts.

A mechanical face-type shaft seal separates the pumping chamber from a "lubricated for life" ball bearing. No further lubrication is required.

Pumping water at room temperature, the capacity of the standard production unit at zero discharge pressure is approximately 100 gph. When the discharge flow is completely restricted, the "shut-off" pressure is approximately 200 psi. In a general application where 100 psi discharge pressure is required, flow is from 50 to 60 gph. Other pressure and volume requirements can be made available.

The above performance requires a shaft sped of 3450 rpm. For special applications requiring less than 50 psi discharge pressure and a maximum of 25 gph flow, a standard 1725 rpm motor will be satisfactory.

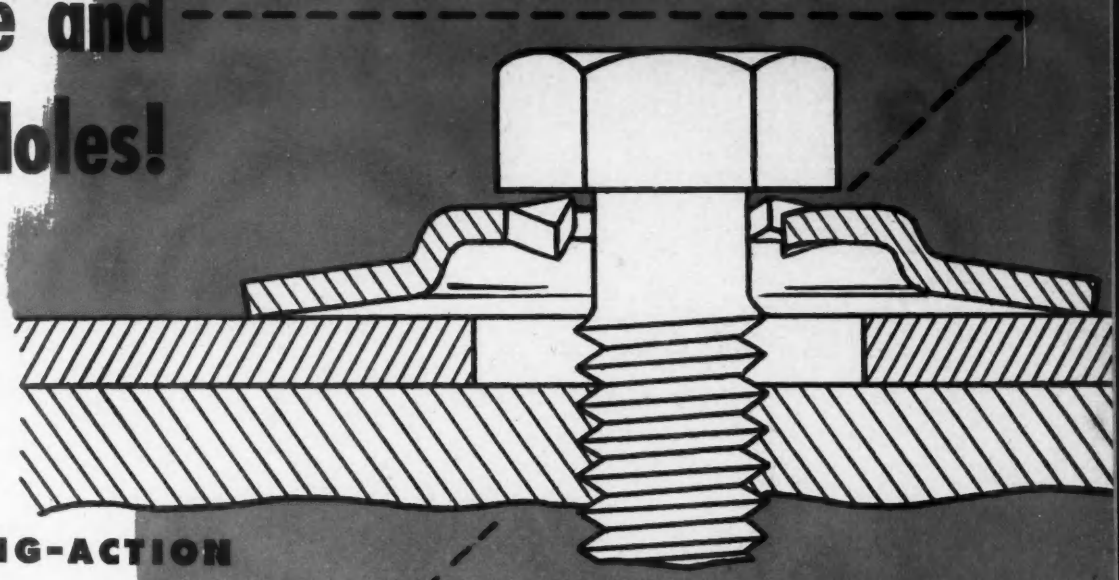
New Battery has Large Liquid Reserve

The "Ful-Fil" battery, available shortly from the Seiberling Rubber Co., Akron, Ohio, is said to need refilling with water only three times a year in normal car service.

(*Turn to page* 224, *please*)

Ful-Fil battery

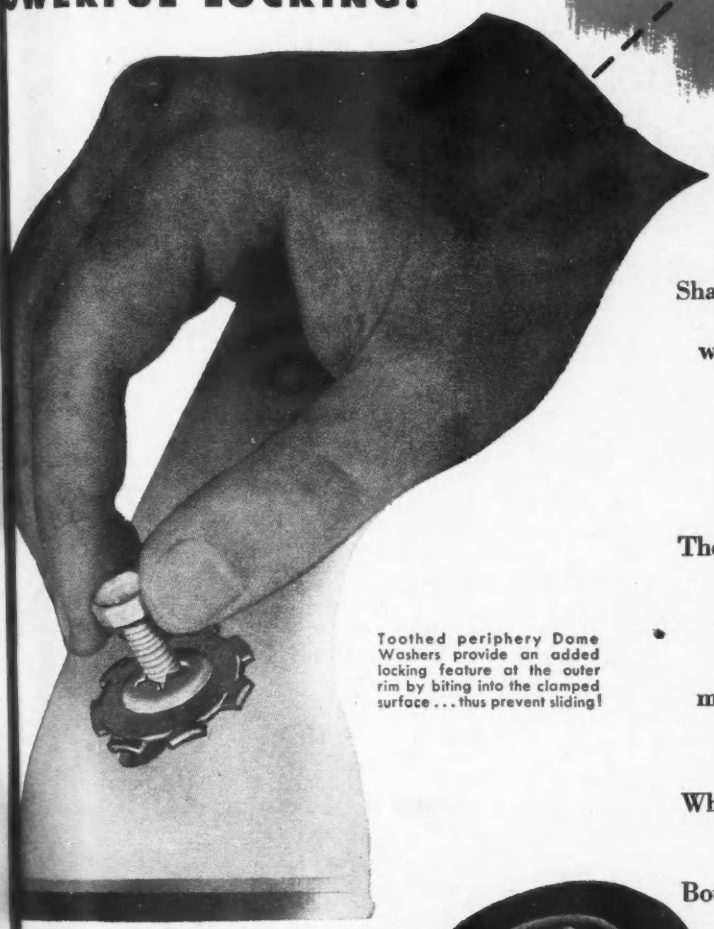
or Oversize and Elongated Holes!



ESILIENT SPRING-ACTION OMBINED WITH OWERFUL LOCKING!

SHAKEPROOF

DOME AND DISHED LOCK WASHERS

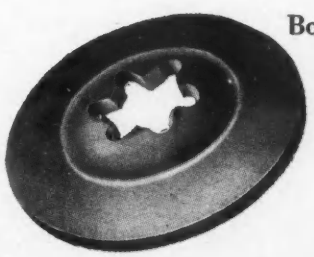


Toothed periphery Dome Washers provide an added locking feature at the outer rim by biting into the clamped surface . . . thus prevent sliding!

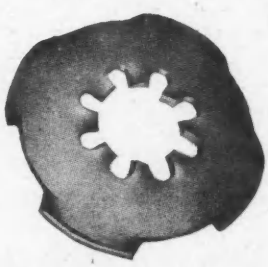
For mounting assemblies using oversize or elongated holes, Shakeproof has developed Dome Lock Washers which obsolete the conventional three piece bolt, lock washer and flat washer fastening. Both the locking and spanning requirements of such an application are now combined in *one unit!* One unit so efficient that the clamped member cannot slip, so strong that the fastening will not cup under stress, and so simple that one third of the usual assembly operation is eliminated.

The Shakeproof Dome construction provides a stiff but resilient spring action in combination with the proven Shakeproof locking principle supplied by the tapered-twisted internal teeth. This construction materially strengthens the washer to absorb the shocks which occur when bolts are momentarily over-stressed by heavy loads. Pressure is directed to the outer rim, creating a lock that resists any tendency toward turning.

Whenever added spring tension is required in such a fastening, greater flexibility is provided by the Shakeproof Dished Lock Washer. Both Washers are especially well suited for use with semi-rough, soft and relatively spongy surfaces as well as for oversize and elongated holes. Test them yourself! Send for free samples *today!*



Plain periphery Dome Washers provide a frictional lock on hardened surfaces that resist bite.



The strong, resilient Dished Washer is also available in both plain and toothed periphery designs!

SHAKEPROOF inc.

fastening Headquarters

Division of ILLINOIS TOOL WORKS

2501 North Keeler Avenue, Chicago 39, Illinois

633 South Labrea Ave., Los Angeles 36, Cal. 2895 E. Grand Blvd., Detroit 2, Mich

Plants at Chicago and Elgin, Illinois. In Canada: Canada Illinois Tools, Ltd., Toronto, Ontario

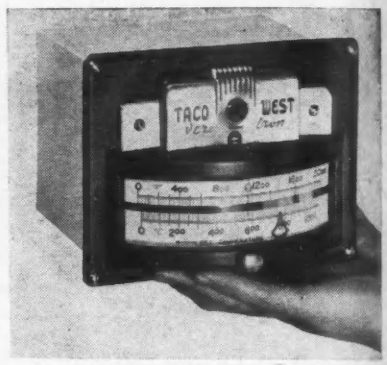
ITE FOR TESTING SAMPLES!

A company announcement says the battery has a liquid reserve three times that of a conventional car storage battery, permitting evaporation over a four-month period in average use without the liquid level dropping below the danger point.

Other features of the product include the use of fibre-glass insulation between plates, which, it is claimed, minimizes "shedding" of the plate lead, eliminating the need for extra-deep wells under the plates.

Two-Position Electronic Pyrometric Controller

The new veritron electronic pyrometric controller has just been brought out by the Taco West Corp., 2620 S. Park Ave., Chicago. This instrument is a two position electronic controller offering a new electronic circuit, ultra compact design and simplified operation. It is specially suited for direct installation on industrial furnaces and plastic moulding machines.



Veritron electronic pyrometric controller

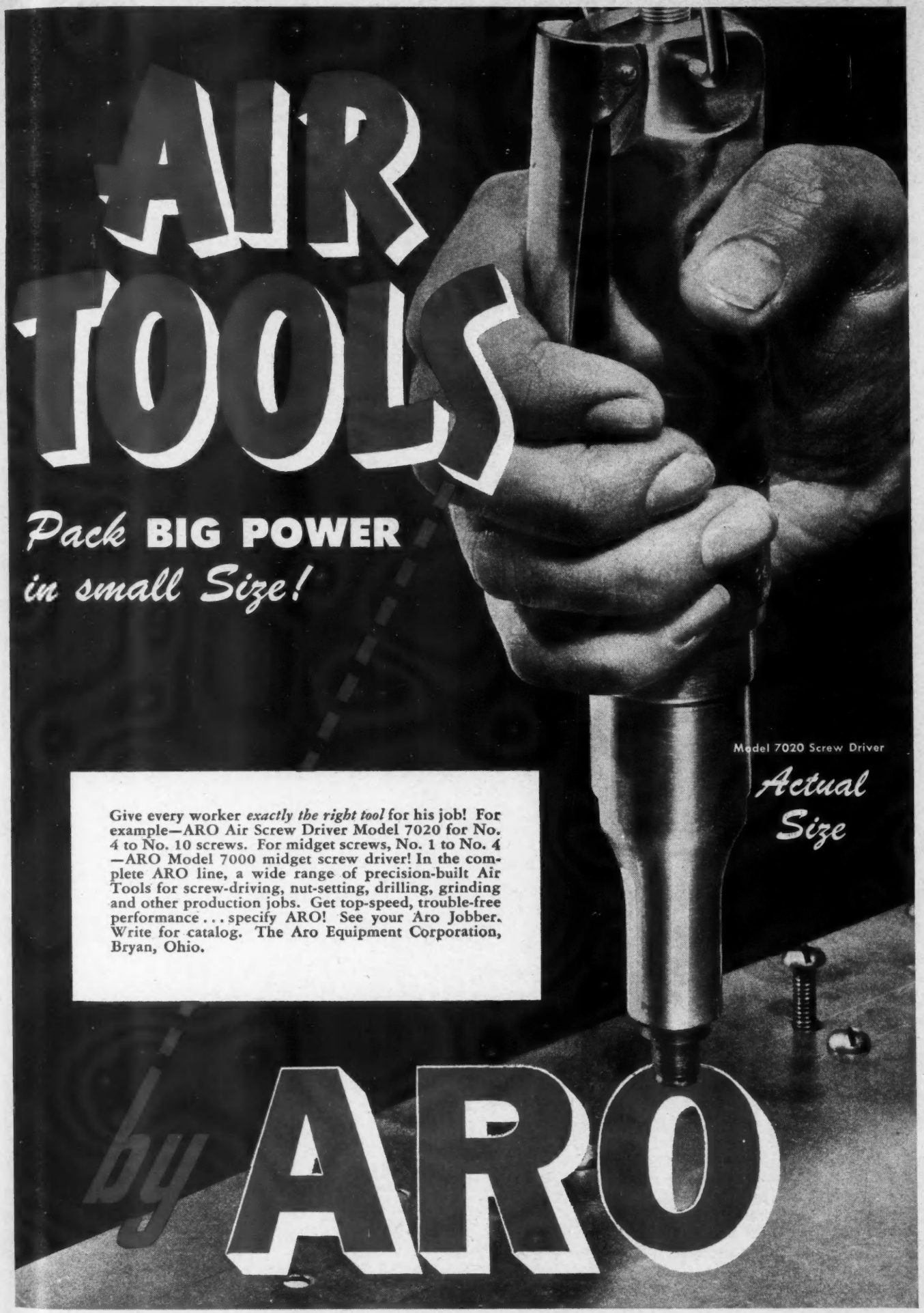
In operation, the control pointer is set at the desired temperature and control is immediately established within a narrow temperature range. The design permits the instrument movement to operate a heavy-duty relay system without any physical contact or reaction effect on the indicating pointer. The relay is built in and has a load capacity of 3 kw non-inductive.

Welding Pipe Fittings

Ladish Co., of Cudahy, Wis., has introduced a new line of Controlled Quality Seamless Welding Pipe Fittings.

The new line consists of 90 deg and 45 deg elbows, 180 deg return bends, straight and reducing tees, concentric and eccentric reducers, caps, lap joint stub ends, saddles, shaped nipples, crosses and tees of carbon steel, in sizes up to 30 in.

Features said to be inherent to the complete line of Ladish seamless welding fittings include uniform wall thickness, accurate circularity, full effective radii, smooth inner walls, machined bevel-ends and improved metal structure.


AIR TOOLS
Pack BIG POWER in small Size!
Model 7020 Screw Driver
Actual Size
Give every worker *exactly the right tool* for his job! For example—ARO Air Screw Driver Model 7020 for No. 4 to No. 10 screws. For midget screws, No. 1 to No. 4—ARO Model 7000 midget screw driver! In the complete ARO line, a wide range of precision-built Air Tools for screw-driving, nut-setting, drilling, grinding and other production jobs. Get top-speed, trouble-free performance . . . specify ARO! See your Aro Jobber. Write for catalog. The Aro Equipment Corporation, Bryan, Ohio.
by ARO

Airbriefs

by Robert McLarren

Record Analysis

The recent record-breaking flight of the North American P-82 Twin Mustang, which covered the 5051 miles from Honolulu to New York City in 14 hrs 33 min is significant in that the airplane is a fighter type, although a silghtly compromised version. Load factors vary inversely, approximately, as the gross weight of the airplane which, in turn, is determined by its type. For example, large transports have designed load factors of as little as 4, whereas fighter aircraft are normally twice or more. Increased design load factor is at the expense of useful load due to the former taking up an increased portion of the maximum allowable gross weight.

As a result, transport aircraft are frequently able to lift their own weight —empty weight being exactly 50 percent of the gross weight. For bomber aircraft this ratio of useful load to gross weight is about 33 percent and for fighter aircraft it drops to about 25 percent. These figures are rough averages and recent progress in aircraft structural design and fabrication have improved them considerably over their value of a decade ago. However, it is obvious that a Boeing B-29 or a Lockhead P2V (the two present record-holders) are inherently capable of carrying a larger proportional load of fuel than a fighter aircraft. From this perspective, it is apparent that the feat of lifting its own weight off a runway, performed by the P-82 at Honolulu is a significant operational achievement. The newspapers credit Lt. Col. Robert E. Thacker, pilot, and Lt. John M. Ard, co-pilot, with having taken off at Honolulu with seven tons of fuel in a fighter aircraft whose empty weight is approximately 15,000 lb. This fuel load was made up of the standard 600-gal tanks of the P-82 plus two special 150-gal tanks behind each cockpit plus 4-310-gal droppable fuel tanks on the wings, a total actual fuel weight of 12,840 lbs. An additional load of about 200 gal of oil would bring this weight to well over seven tons. Indications are that a specific fuel consumption of less than 0.45 was achieved on the flight, a tribute to the skillful power settings and pilotage of the two crewmembers. Assuredly the day of the "one hour-full throttle" fighter plane of prewar days is gone and the very-long-range fighter is here.

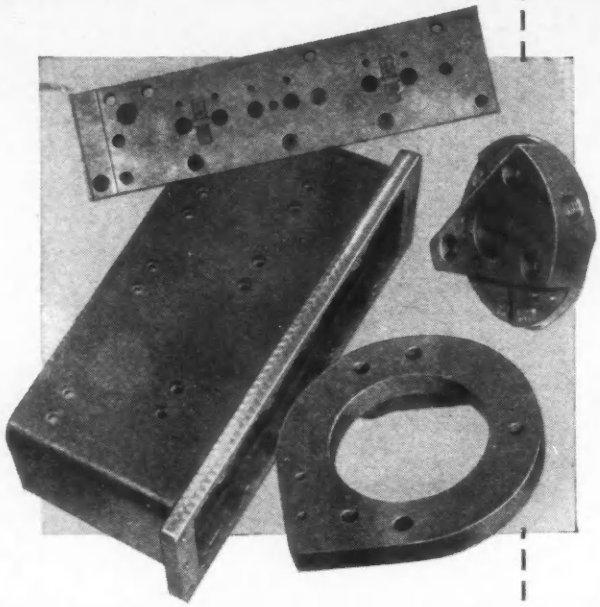
Bomber Escort

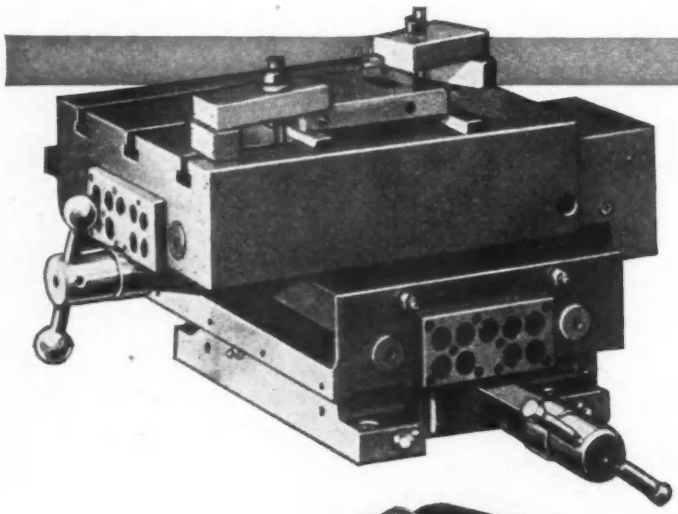
The long-standing discrepancy between bomber and fighter range resulted in the necessity for increasingly heavy armor on the bomber and continuous additions to its armament; all at the expense of bomb load. The early years of the war in Europe saw heavy bombers flying deep into enemy territory completely without escort. The multi-gun bomber became commonplace and the 13-gun Boeing B-17 and B-29 was accepted as standard bomber design. The 14-gun Boeing XB-40 and Consolidated XB-41, which were standard Fortress and Liberator types with bombs removed and additional turrets installed, was a step towards the bomber escort, although experience

(*Turn to page* 230, *please*)

Now... you can drill, bore, ream or tap pieces like these

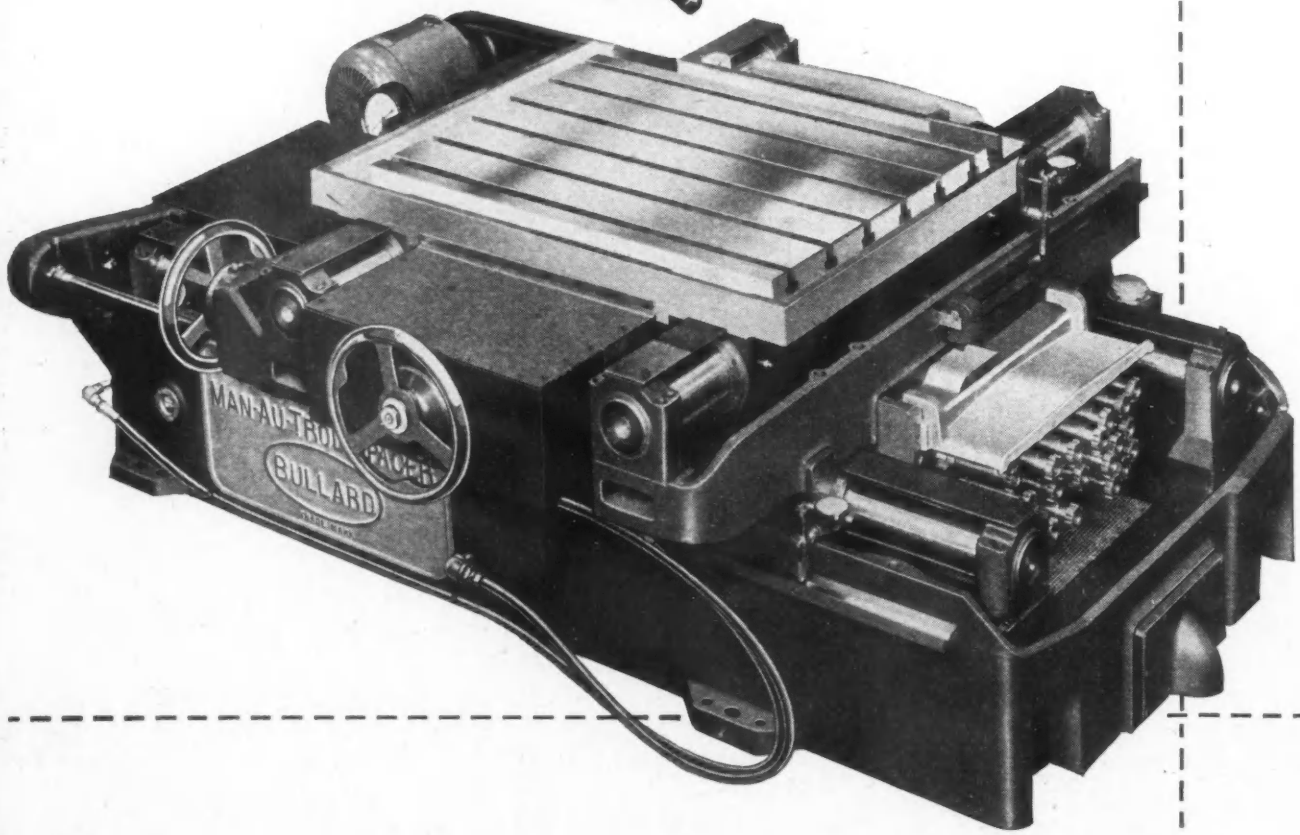
Actual work produced by Bullard MAN-AU-TROL Spacers without the use of jigs.





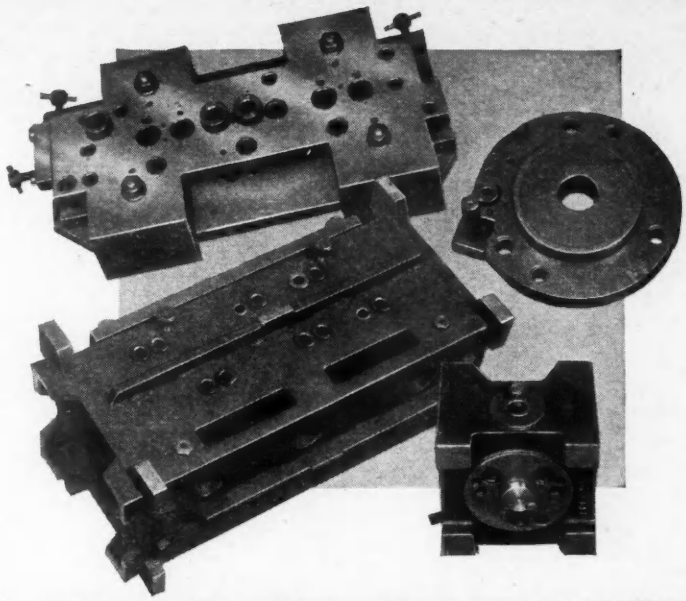
...with Bullard Man-Au-Trol Spacers

4" x 4" Spacer for use with smaller sensitive drills. 30" x 20" Spacer for use with radial drills.



...and eliminate jigs like these

These cumbersome, costly jigs were formerly used to produce the pieces shown on the left.



New Bullard Man-Au-Trol Spacers Speed Production... Reduce Costs

With these semi-automatic positioning tables replacing most of your hole-locating jigs, men and machines that used to be tied up on jig fabrication can join your production line.

With the cost of designing, making, handling, repairing and storing jigs just about eliminated, your competitive position takes a turn for the better.

All the details about the way this *New Bullard Method* repeats any pattern of holes to speed production, reduce manufacturing costs, lessen operator fatigue, are contained in the new MAN-AU-TROL Spacer Bulletin.

Write for a copy today. The Bullard Company, Bridgeport 2, Connecticut.

BULLARD

CREATES *NEW METHODS* TO MAKE MACHINES DO MORE

proved it to be one in the wrong direction. Design teamwork can now produce the 2-3000-mile fighter escort and the 300-400 mph bomber, the latter without armament but with increased bomb load.

New Turbojet Problem

The results of a "dead" turbojet engine have been subject to considerable technical speculation since the multi-jet fighter and bomber became practical. The question was whether allowing the dead turbojet to "windmill" (by the action of air moving through it) or "braking" it (allowing the air to move through the fixed blades of the compressor and turbine) provided the least drag. British practice on the Gloster Meteor has been to permit "windmilling." Results of a research program by the National Advisory Committee for Aeronautics indicates, however, that "windmilling" creates serious drag losses. NACA tests report that windmilling drag equal to 15 percent of the maximum net thrust at 500 mph and 25 percent of the m.n.t. at 650 mph results. The solution lies in retractable air inlet doors which can be closed when the engine dies, thereby saving these surprisingly large losses.

New Sonic Research Airplane

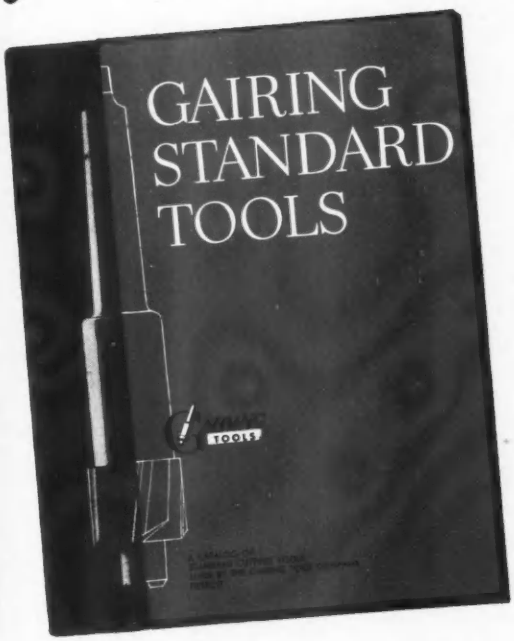
Exidence of the scope of the nation's transonic research program comes with the announcement that the Bell XS-1 is to be followed by a number of other experimental research airplanes designed to provide information on piloted flight through the transonic speed zone (600-900 miles per hour). Three major solutions to the problem of transonic flight indicates promising possibilities. The first of these is thin wing profiles. The second of these is low aspect ratio wings (with wide chord and narrow span, so-called "stubby" wings). The third is wing sweep, in which the wing extends forward or aft from the fuselage. To test the possibilities of very thin wings is the purpose of the Bell XS-1 rocket-powered research airplane. The second research airplane, designed to test low aspect ratio, is the new Douglas D-558, sponsored by the Navy Bureau of Aeronautics. This new research airplane is of conventional configuration and differs from theXS-1 in the use of a production General Electric TG-180 axial-flow turbojet engine, permitting it to takeoff under its own power. It is built largely of magnesium and the nose section is releasable in mid-air, permitting it to slow down to a safe speed for the pilot to release his parachute. The wings are of only 25 ft span, while the airplane is 35 ft 1½ in long. This airplane, designated XS-3 by the Army Air Forces, is expected to make its first flight shortly from the AAF test station at Muroc Air Base in the California desert.

Other Research Airplanes

Magnitude of the program is revealed in the large number of research airplanes now under construction. The Bell XS-2 is essentially an XS-1 with sweep-back wings. The XS-3 is the Douglas D-558 and the XS-4 is a Northrop "triangle wing" design, patterned after the German Lippisch proposals. In addition, the Lockheed XP-90, Republic XP-91 and Consolidated Vultee XP-92 have been reported to be research airplanes built along tactical lines. Thus, more than half-a-dozen transonic research airplanes will be featured in the program, which is under the general supervision of the National Advisory Committee for Aeronautics. Each of the airplanes is being built under routine Army or Navy procurement specifications and performance guarantees must be met, following which the airplane is accepted by the procuring service. It is then turned over to the NACA for the extensive flight test research program

(*Turn to page* 232, *please*)

Just off the Press -



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These and many more, the whole line of standard cutting tools made by GAIRING, are now completely described and shown in the new *Gairing Standard Tool Catalog.*

All these are tools of general application, made in standard designs and generally available from stock. All are based on the economy principle of interchangeable cutters and some of them have been made by us for as long as thirty years.

Completely catalogued are: interchangeable counterbores, threaded holders, full floating holders, tungsten carbide tipped counterbores, back spotfacers, core drills, micro-nuts and hollow mills. A few pages are devoted to an introduction of the block-type boring tools and some of the more generally used special tools like multi-diameter cutters, carbide-tipped cutters and milling cutters.

THE GAIRING TOOL COMPANY

21221 Hoover Road,
Detroit, Michigan

required. NACA has revealed no details on this program other than the fact that their research men will "feel their way" into and, perhaps, through the transonic region. Certainly the time, money and effort indicated by the scope of this program removes any doubt of the seriousness of the difficulties of control and stability of piloted flight in this speed range and, assuredly, it is not going to be bridged overnight.

Fins for the Wing

The fundamental achievement of John K. Northrop in his "flying wing" was the creation of the first successful true wing without vertical surfaces of any type. To design and build an "all-wing" aircraft stabilized by vertical fins is a very minor problem and was solved successfully as early as 1912. The famous Burgess-Dunne flying wing hydroplane was delivered to the U. S. Navy in October, 1913 and a second model in April, 1915. It is interesting to note that the major criticism of these two airplanes was that they were "too stable." Since that time there have been literally dozens of flying wings throughout the world; all with vertical fins for directional stability. Northrop worked for two decades to eliminate these fins from the flying wing and succeeded. Now, however, comes news of the Northrop YB-49 with four vertical fins and the story behind those fins is interesting.

The YB-49 is essentially the famed Northrop XB-35 with eight General Electric turbojet engines replacing the four Pratt & Whitney Wasp Major reciprocating engines. These jet engines are mounted in close sets of four in either outer wing panel. This combination of four jets induces a powerful flow of the air from the adjacent area into the jets resulting in a spanwise flow along the wing inboard from the tips and outboard from the center section, which unhindered would create serious losses. Northrop's solution was a small fin on either side of each bank of four jets to prevent this induced flow into the jets. However, after more than 20 years of working to eliminate "fins" from the flying wing and since these fins are not used to provide directional stability, Northrop coined the term "air separators," which manifestly they are, and the new Northrop YB-49 jet bomber has no "fins." only "air separators"!

30,000-Ton Hydraulic Press Used by Germans

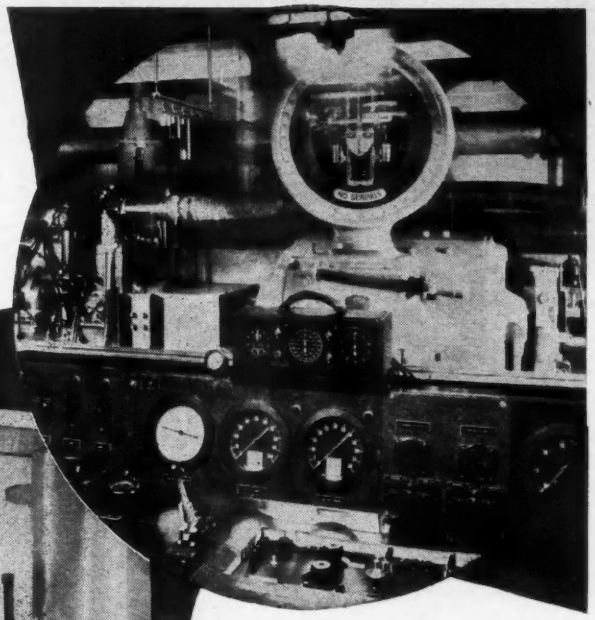
The Germans used a 30,000-ton capacity hydraulic die press during the war for the manufacture of propeller blades and other vital aircraft components, according to a report being compiled by Technical Intelligence, Air Materiel Command. This big press, it is stated, could turn out 1940 propeller blades or an equal number of 32-ft wing-spar flanges in 24 hours. It weighed 4800 tons, and used 41 in. diam cylinders to provide a top working pressure of 6450 psi with a ram travel of 71 in. Also to be included in this report are data on 15,000-ton presses, of which the Germans had several in operation during the war.

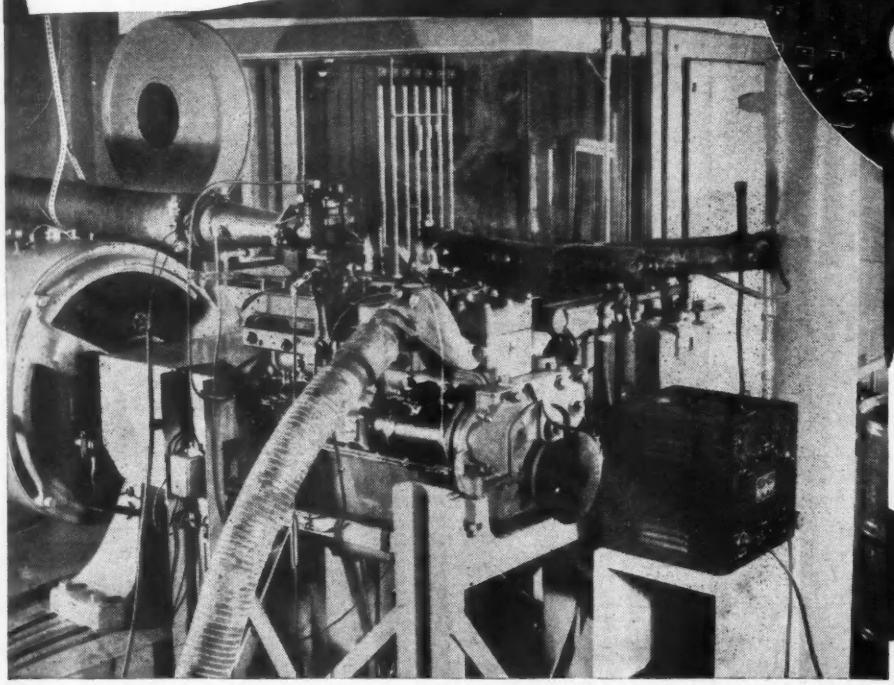
Largest American hydraulic die presses in general use are listed as of 6000-ton capacity. Larger ones are under experiment; and the Wyman-Gordon Co. anticipates success with its 18,000-ton Mesta in the production of large light-metal forgings.

Thousands of detail drawings of the 30,000-ton and other large presses were seized in Germany, but because of their state of disorder are not yet available. The former manager of Schloemann, Dusseldorf, who built the big press for I. G. Farben at Bitterfeld, is directing the sorting and rearrangement of the drawings. Ernst Kugel, former design engineer for Schloemann, and now at Wright Field, has provided sufficient data for preliminary studies. He says the large press is similar in many respects to the 15,000-ton press, of which adequate drawings and operating techniques are available.

These large-capacity presses were also used by the Germans for extruding steel cartridge cases, lading gear cylinders and other steel bases.

We're learning new ways to INCREASE THE POWER OF YOUR ENGINES!





Close up of part of the test control panels inside the soundproof observation room. Here exhaustive test data is recorded under the most scientific laboratory conditions possible.

General view of test laboratory where customers' engines are put through exacting engineering tests to learn how much the performance can be increased with a B-W Supercharger.

. . . and we're proving that B-W Superchargers can step up engine power as much as 40 per cent without appreciably increasing engine size or weight!

We're learning new things every day about B-W Superchargers in our new Pesco research and testing laboratories in Cleveland. Here, the most modern engineering equipment is being used in a never-ending search for ways to increase the efficiency of *YOUR* engines with B-W Superchargers. This constant research has not only resulted in B-W Superchargers that will increase the efficiency of gasoline or Diesel engines as much as 40 per cent, but they will do it without appreciable stress or strain on engine parts.

Too, a B-W Supercharger will give an engine more torque at low speed . . . make possible more pulling power and speed uphill . . . provide more bite for power shovels . . . and, mighty important in high-altitude operations, restore sea level power to any engine. The cost of adding these and other advantages of supercharging to your engine is small compared to first-cost engine savings and over-all operating costs. That's why it will pay you to get the full story. Write today to Department 37-R. And remember . . . our new address . . .

In Precision Hydraulics, Fuel Pumps, Air Pumps, Related Accessories and Aircraft Electric Motors . . . Performance Points to PESCO First.

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MANUFACTURERS OF BW SUPERCHARGERS

New Serrated Shaft Standards Developed

Seeking to remove some inconsistencies in the SAE Serrated Shaft Standard, which has been in existance for many years, a special subcommittee of the Parts and Fittings Division has finally developed a 45 deg. Involute Serration which offers greater flexibility in its application and promises some major advantages from the standpoint of manufacturing practice. The new Standard will appear in the 1947 Edition of the SAE Handbook.

The old serration standard with a 90 deg. included angle has been used extensively where a shallow tooth was required. However, it allows for only one pitch per diameter listed and lacks the flexibility to cover the variety of design problems. Moreover, the recent study brought out the fact that when certain serrations are produced by hobbing the profile resulted in an involute form although, theoretically, the serrations were considered straight sided.

The new Standard provides a uniform, easily fabricated set of serrations that can be made by several manufacturing processes. It is based upon the use of known standard shaft or tubing diameters ranging from 0.10 to 10.00 in. in diameter. To simplify the selection of serrations, the standard is based upon even diametral pitches, slightly coarser than the old standard and with a range of teeth presenting diameters both smaller and larger than the old standard, thus providing a greater range of sizes. The complete range by pitches and number of teeth is given below:

D. P.	No. Teeth
10/20	6 to 100
16/32	6 to 100
24/48	6 to 100
32/64	20 to 64
40/80	32 to 55
48/96	24 to 46
64/128	21 to 34
80/160	14 to 27
128/156	11 to 24

Involute serrations have a pressure angle of 45 deg. and will be made in three classes of fits—LOOSE, CLOSE, PRESS—designated in the standard as Classes A, B and C, respectively. Another feature of the standard is the recommended tolerance for space width and tooth circular thickness; also a table of standard fits for the circular clearances or interferences in the three classes. These fits and tolerances are not considered binding on the manufacturer or seller unless specifically agreed upon in writing in advance.

From the standpoint of production economy the new standard parallels the advantages of the involute spline standard adopted last year. Shafts can be serrated by hobbing and require the use of only one standard hob for a given D.P., the one hob being capable of producing the entire range of shaft

(*Turn to page* 238, *please*)

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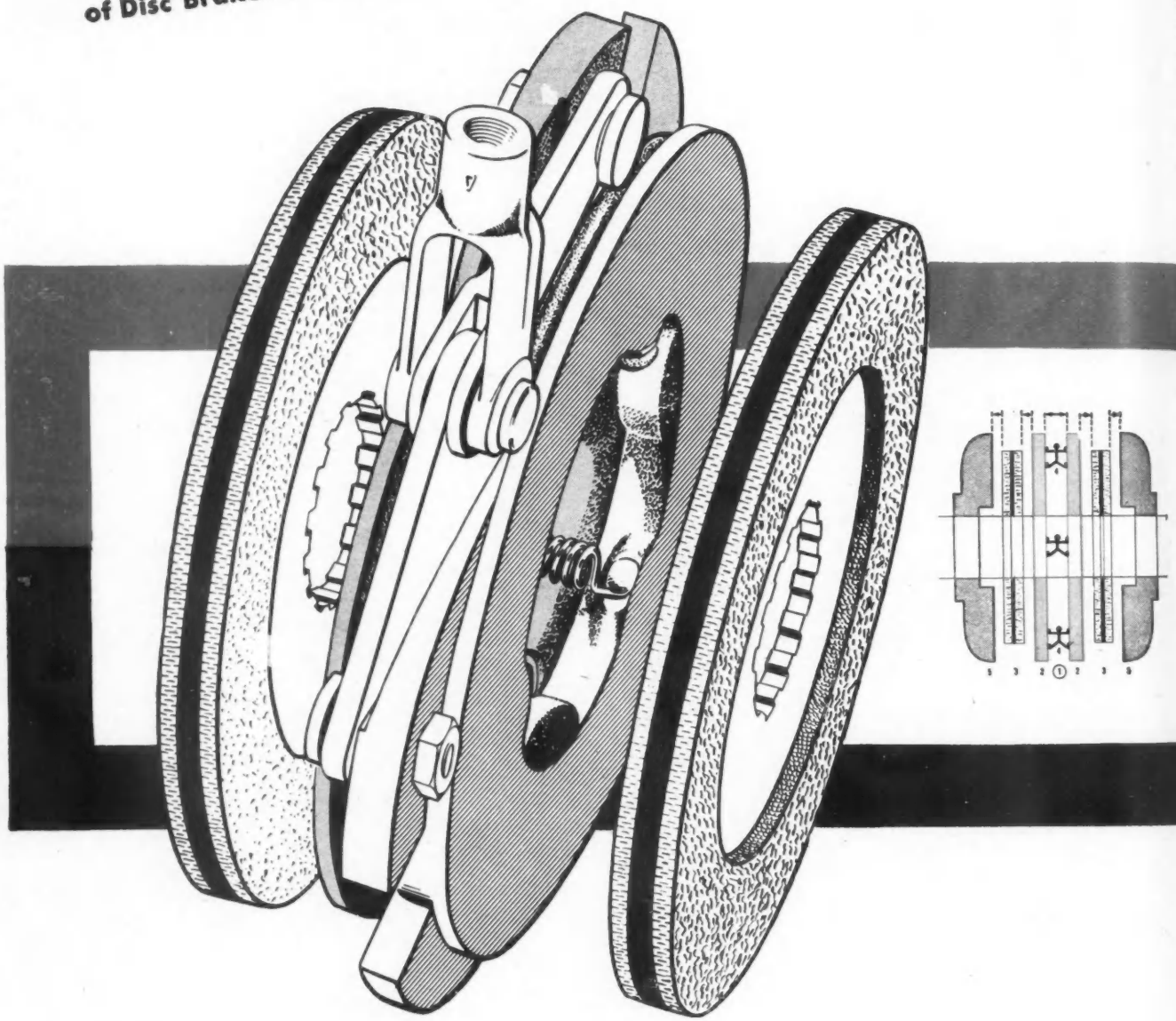

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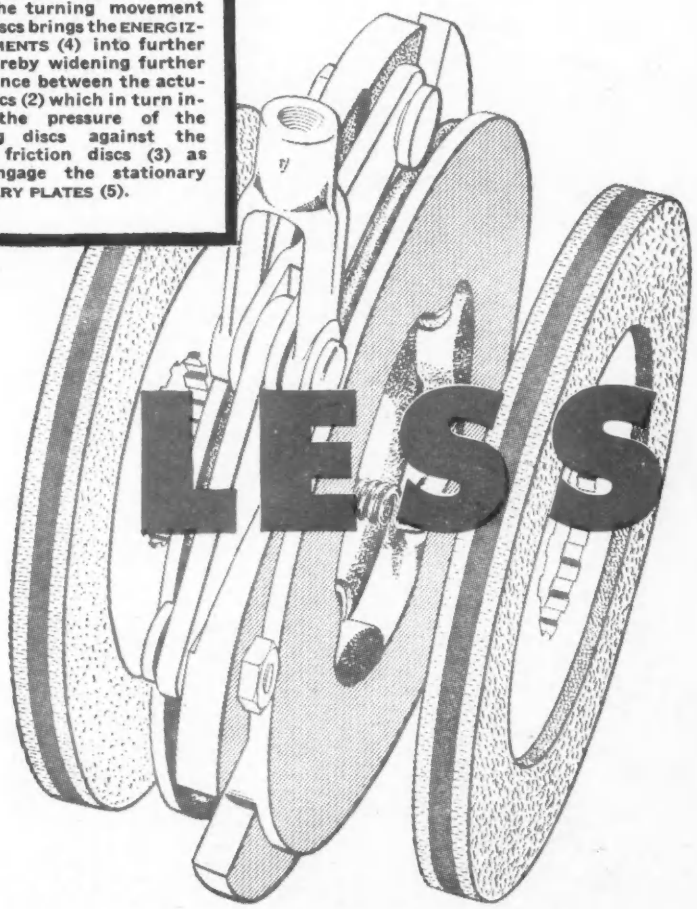


LESS

Operating Cost

Weight

Parts

Pedal Pressure

sizes. Thus the number of hobs to be stocked is reduced to an absolute minimum. Depending upon bore size and production lots, bores can be serrated by means of broaches or shaper cutters.

Since serrations are used primarily for fittings which have a permanent fit between the shaft and the fitting mounted on it, their range of useful applications is more limited than is the involute spline. Among the principal uses in automotive construction are: for pitman arms and shafts, carburetor linkage, brake linkage, and for torsion bars.

Curiously enough the new standard has had to make provision for the fact that for most D.P.'s the deviation from a straight sided profile is so small for a certain limiting number of serrations as to make it desirable to specify straight sided serrations in the bore. The standard specifies the range of serrations for each D.P. below which the producer will use broaches with straight instead of involute sides. The criterion is a deviation of 0.0015 in. or less between an involute curve and its tangent. Thus for certain sizes the shaft will have involute sided serrations while the mating bore will be straight sided.

Design Features of German Passenger Cars

By Austin M. Wolf

There is a great variety in the design of German passenger car frames, with however two predominant classifications: unit frame and body as exemplified by BMW, Hanomag, Opel and others; and the tubular backbone or original Tartra type in which is found the Hansa Lloyd and the latest small Mercedes. The Volkswagen is a combination of the two types with its backbone-floor structure and superimposed open body. With the backbone type, the body is either mounted on outriggers from the center or incorporated in the body structure. A third classification would be the prevailing American practice of separate frame with side rails and body secured thereto. It is little used and confined almost exclusively to some Mercedes models. Practically all German cars have tunnels in the body due to their low mounting, being either part of the floor structure or the frame backbone, and with the propeller shaft extending therethrough.

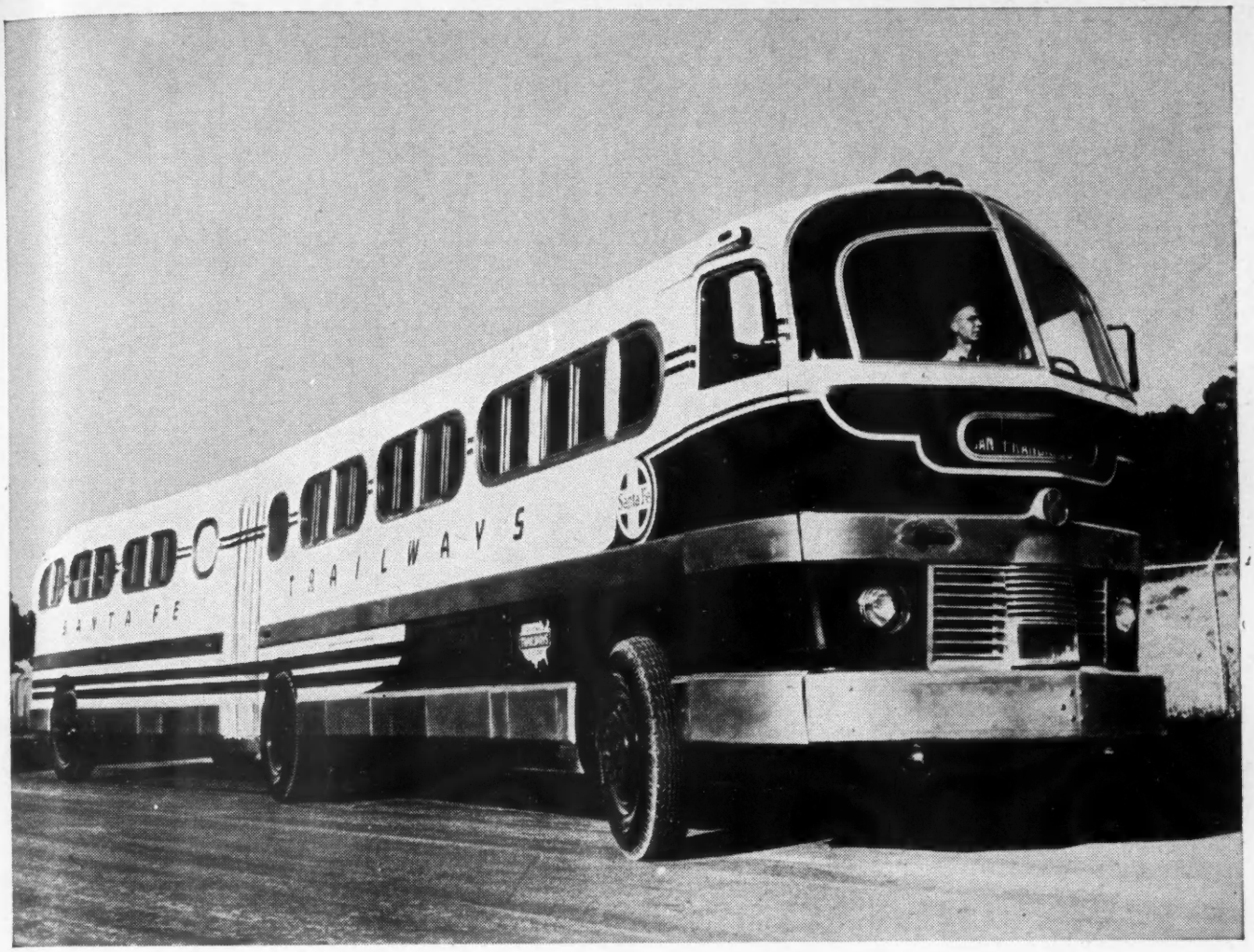
The front-end parallel fork and the tapering rear fork reaching up to the transverse leaf-spring seat of the Hansa Lloyd are of inverted U-section, with horizontal out-flaring flange extensions which, when merged to form the wider backbone, gives it a corresponding inverted section with the horizontal flanges closed in below by a steel plate forming the floor.

Front cross members often incorporate the front suspension system and are bolted in place to the frame-body front end. Hanomag thus incorporates a tubular member, and BMW a deep channel. The Mercedes with parallel springs and Hansa Lloyd weld in the cross member in substantial manner.

Welding in passenger car frame construction is used to a considerable extent. Only where a member need be removed for servicing the component part or parts that it houses or mounts, is it bolted in place. Welding has been very successful and gives the desirable rigidity.

Each type of spring is represented in German design: leaf, coil, torsion-bar and rubber. In many instances, the front system differs from the rear. The longitudinally placed front springs, formerly so popular in the United States, have also been discarded in Germany but the leaf spring is by no means out of the picture. If used at the front, it is placed transversely across the chassis, either in combination with a wishbone above or below it (Auto Union, DKW, one model Mercedes) or the combination of the two transverse springs, one above the other and inclined for caster action, to which the steering knuckle mounting is at-

(*Turn to page* 240, *please*)



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YOU quickly see the advantages of magnesium when you compare an average bus with the new Kaiser Coach, built by The Permanente Metals Corporation for Santa Fe Trail Transportation Company. The conventional intercity bus weighs about 22,000 pounds and accommodates 37 to 41 passengers. The Kaiser Articulated Coach, its body constructed of magnesium and a smaller quantity of aluminum, weighs 32,460 pounds. With the usual space between seats, it can be made to carry 68 passengers by omitting the lavatories and the snack bar. Thus, through the use of light metals, advanced design has achieved a 74% increase in passenger payload with only 48% additional vehicle weight.

* * * *

Some of the most dramatic applications of magnesium have been in the construction of new types of vehicles for highway and air transportation. There are scores of other instances, however, where Revere magnesium has been used in vehicles of standard size simply because its light weight saves gas, oil, tires and maintenance or permits a heavier payload. A fleet operator could justifiably pay a premium price for such bodies, but several prominent truck body builders have been able to build *their first magnesium body at little more than the cost of former steel bodies.*

This remarkable development has been made possible through the design, by Revere engineers, of magnesium alloy sheet and standard shapes which enable any body builder to produce truck panel bodies of magnesium easily and quickly. Readily available for prompt shipment, these Revere materials can be assembled into bodies by means of the simplest fabricating methods.

For further information on Revere magnesium and its ability to save money for you, get in touch with the nearest Revere office.

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tached. (Hansa Lloyd. Mercedes, Steyr).

A torsion-bar spring is incorporated in the front and rear suspension systems of the Volkswagen. The front wheels are each mounted on two trailing paralled arms 5.9 in. long, pivoted at their front to two spaced tubes, one above the other, forming part of the frame structure. Each bar is square and runs entirely across the frame tubes, being attached to the wheel arms at their ends and anchored centrally to the tubes. Two spaced bushings are located within the ends of the tubes, rocking therein under wheel deflection on their outside diameter and forming a square fit over the torsion bars. The square bar is laminated, being made up of rectangular sections welded together at the ends.

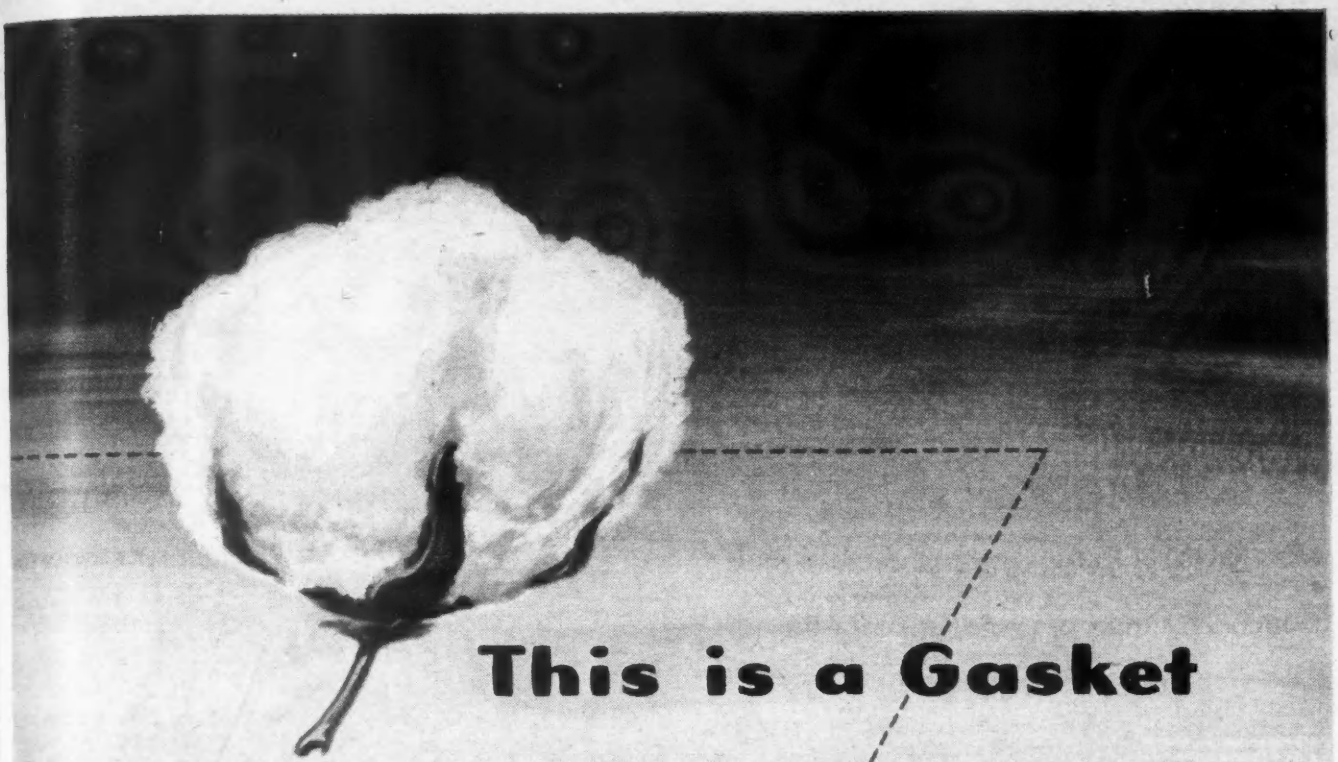
The rear torsion-bar system consists of two round, aligned bars with splined ends, the center portion being below the spline root diameter. They are housed within a tubular frame cross member ahead of the rear axle, the inner splines being anchored near the vehicle center. Flexible radius rods act as rear wheel supports and are in the form of flat spring stock with the major axis vertical. They are secured at their front ends to the torsion bars and are bolted at their back ends to the axle housings at their outer extremities. This flexibility is needed to permit yielding to wheel movement in view of the swinging axle type of construction used. The spring stock is welded to a short length of low-carbon steel with a splined hub to take the outer spline of the torsion bar. Two circular rubber bushings, one each side of the radius rod hub, resiliently centralize it between the frame and an end plate thereon.

The rear of two models of the BMW chassis have torsion-bar suspension. At each side a round longitudinal bar runs from a frame cross member under the front seat through a cross member ahead of the solid-housing rear axle. On a frame rear extension, from the last mentioned cross member and immediately to the rear thereof, is mounted an hydraulic shock absorber with a splined socket receiving the rear end of the torsion bar. The front end is also splined and held in a mating bracket. The preloading of the bar is done by spline adjustment. Outwardly and slightly downwardly, inclining shock-absorber arms are each attached to the rear axle close to the brake backing plate by a ball-jointed shackle link. The third attaching point to locate positively the axle housing and to absorb torque, drive and braking reactions consists of a ball joint placed centrally at the top and forward side of the differential housing. A V-member extends forward from the ball joint at the point, and the spreaded ends are anchored in axial transverse alignment to the frame cross member by rubber bushings.

The Hanomag front suspension, proven by close to 10,000 cars incorporating it, depends on stressing rubber in torsion, similar to developments that have been current in the United States. In its layout, the knuckle pin has considerable inclination in view of the relatively greater distance from the wheel (4.72 in. measured on the wheel spindle axis) in order to achieve close to center-point steering. The king-pin bosses are welded into, and form part of, the tubular frame cross member. Two rubber bushings are used, spaced apart in a vertically divided cast member encompassing the knuckle pin and to which the bushing outer shells are bolted at the spread portion toward the frame. This member swivels on the knuckle pin. A short upper wishbone and a longer lower one are secured to each bushing inner sleeve by pins with serrated ends, the serrations spanning the wishbone pivot hubs and the serrated sleeve ends. This provides the means for the initial pre-loading and maintaining it. The split member, bushings, wishbones, wheel mounting and spindle, all swivel as a unit around the knuckle pin in steering, as did the Dubonnet unit.

The Hanomag limousine, ready for the road, weighs 2140 lb with an equal weight distribution, front and rear. With a five passenger load the distribution becomes 40 per cent front and 60

(*Turn to page* 242, *please*)



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per cent rear. Figuring a passenger at 165 lb the front end weight becomes 1187 lb. With a 165 lb pre-loading, a single unit showed a straight line characteristic between 441 lb loading (with a 1.32 in. wheel spindle deflection) and 1102 lb (with 5.2 in. deflection). The rate is approximately 168 lb per in. Taking the above passenger loading, the normal or static condition would be about 551 lb with 1.97 in. deflection at that load. Above 1102 lb, the rate goes up increasingly faster with an upper limit of 1543 lb with 6.85 in. deflection. On the return stroke, hysteresis accounts for a drop of 26.4 lb when returning to the 1102 lb load and 22.6 lb at the 441 lb point.

The above is an extract from the FIAT (Field Information Agency, Technical) Report 412, "Passenger Car and Truck Chassis," by Austin M. Wolf, Joint Intelligence Objectives Agency.

Piston Forging Tools Give Long Service

In manufacturing forged pistons for heavy-duty Diesels at Specialloid Ltd., Great Britain, more than 50,000 pistons have been made with a single punch head. This punch, made from hot die steel containing 10 per cent tungsten, operates at temperatures between 300-400 C and transmits a total load of 1120 tons. The design of the piston forged by this tool is relatively complicated, having a waffle plate in the under side of the crown. Other tools used in this forging process include a nickel-chrome-molybdenum steel base plate which has been used for 80,000 pressings, and a liner of nickel-chrome-molybdenum steel which has produced more than 120,000 forgings.

Serial Numbers on Frame Protect Car Identification

Ford Motor Co. currently is stamping serial numbers of its passenger cars in four different places on the vehicle. Ford does not carry an engine number on the block as do most other manufacturers, but puts the serial number of the car on the bell housing and on three separate places on the frame. Consequently, if an engine is changed, alteration on the title is not required. Under this system, it is very difficult for anyone to obliterate or otherwise change the serial number of the vehicle, which is of value in tracing stolen cars.

Infra-Red Radiation For Defrosting Windshields

Use of infra-red radiation for defrosting automobile windshields is a development reported by a Hollywood inventor. He states he has patented a new device which sends the rays through the windshield applying heat directly to the ice and giving much faster thawing action. He adds that the infra-red rays work equally well through glass of solid or laminated construction.

Material Handling in the Automotive Industry

By N. M. Loney
Director Works Engineering, Fisher Body Div., General Motors Corp.

Material handling may be considered to involve the packaging and transportation of materials from the last operation in the supplier's plant through processing operations in the fabricating plant, and to include shipment of all outbound material to be further handled at some other plant.

In the layout of a production plant, consideration must be given to the layout of the processes to produce an economical flow of material through the plant. Maximum planned amounts of material on hand at any one time should not be exceeded, and purchasing specifications should provide for the proper packaging of material for efficient mechanical handling. The department head in charge of material handling should rank with other department heads so that an equal balance may be preserved, and he should be provided with ample cost analysis facilities so that standards of performance may be set up in order to maintain maximum efficiency in material handling. An important tool for the material handling department is a development shop, which should be provided with a generous budget of sufficient size to enable it to develop ideas furnished by all sources and, more particularly, by the various plants using the equipment.

The design of the packaging of materials should aim for high-density packages of largest manageable bulk to permit the maximum use of mechanical power in place of manual handling.

Pallets

Many considerations enter into the selection of the proper type of pallet. When pallets are used for long distance shipments, the freight charges on the weight of the pallet, especially if it is desirable to return the pallet to the source, become a very important factor. In present practice, this usually leads to the use of a cheap, wooden non-returnable pallet with relatively short life and high original cost per use. It is doubtful if the so-called expendable pallet made of paper or plastics will afford sufficient protection against damage to material; and the original cost of pallets made of lightweight metals is prohibitive.

As the use of pallets increases, eventually it may be feasible to establish, in each of the larger centers, a pallet exchange so that pallets of a more permanent character, as received, may be sold at fixed prices to the exchange, and resold by the exchange to other users.

Steel Containers

Where the cost of transportation permits, and where there is a large repetitive shipment of the same commodity, it has been found that a permanent returnable steel container is the best method of shipping such material. These containers may be equipped with special devices to prevent damage by contact with each other, thereby avoiding the necessity of any expensive wrapping or other protection. Their use also eliminates as many as six handlings of individual parts when the parts are so arranged as to be loaded as an element of the fabricating process and unloaded as an element of the assembly process. In many cases where the volume is sufficient, shipping conveyances, such as highway trucks, may be equipped with roller conveyors or even chain conveyors, and the loading docks equipped with either chain or roller conveyors,

(*Turn to page* 246, *please*)

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Federated Metals is first with a *complete* line of babbitt metals . . . "Thermodyne" and "XXXX Nickel" tin-base babbitts for heavy bearing loads; "Merit" metal and "Record" lead-base babbitts for lighter loads; and Federated "G" and Federated "S" lead-base babbitts for precision bearings or special properties. ▶ Federated is first in the non-ferrous field with its chemical and metallurgical facilities. When you buy Federated products, you have access to all this technical help. ▶ Federated is first with its nation-wide network of 11 manufacturing plants. You have more sources of supply, more opportunities for better service, all with the protection of Federated's quality control. ▶ Federated is first in convenience, too; there are 25 Federated sales offices to serve you from coast to coast. For the office nearest you, consult your phone book or write *Federated Metals Division, American Smelting and Refining Company, 120 Broadway, New York 5, New York.*

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AMERICAN SMELTING AND REFINING COMPANY

to load the containers in trucks in multiple tiers in the shortest possible time. It should be understood that the basis of this system is a sufficient supply of containers so that one set may be travelling and one set be in the process of loading and unloading at both ends of the line. In considering such a system, it is necessary to limit the maximum amount of stock to be handled by the system at any one time, since the system fails completely if the amount of stock to be handled exceeds the capacity of the equipment.

Plant Handling

In order to use mechanical handling at its maximum efficiency in a manufacturing plant, ample space and facilities must necessarily be provided at the receiving and shipping docks to permit ready movement of the mechanical equipment. Ample aisles must be provided if it is desired to have all the stored items in the warehouse readily accessible. Very good use may be made of tierable work carriers, where individual items or packages may be loaded into racks and handled in loads of 3000 to 6000 lb in one operation, tiered so that the entire available space below the ceiling may be utilized. After the material is delivered to the first operation on a progressive manufacturing line, a great deal of judgment must be used as to whether the material should be transported from operation to operation by floor or ceiling conveyors, or whether containers of various kinds should be used for such purposes. If the operation is such that all the machines on the line run at the same rate, the conveyor is the best tool. However, there are many operations where various machines on a line run at different speeds, and it is necessary to store partly fabricated items temporarily. In such cases, the container is superior to the conveyor.

There are several interesting variations in the handling of material between processes where many ingenuous uses may be made of attachments to lift trucks, or where combinations of conveyors and containers may be profitably used. For instance, in the fabrication of small parts where it ordinarily might be necessary for the operators to reach into containers setting on the floor adjacent to the process, small parts may be fed directly from the machine to portable elevating conveyors, with portable bins or containers at such a height that the parts may be fed to the next process by gravity. A variation of this is to provide the life truck with suitable forks and rotating devices so that small parts may be elevated in containers by lift trucks and dumped into permanent bins by the inversion of the container, again feeding the next process by gravity.

The foregoing article is an abstract of the paper of the same title presented by the author at the 1947 National Material Handling Exposition in Cleveland.

* How to raise gears to live and work together

HERE'S A PAIR of twins and a set of "quads" born and raised to live long and work well as a team. They come from a long-lived family of products that has earned a reputation for staying on the job. "Double Diamond" is the name.

No one factor is responsible for this. Rather it is the hard day-to-day job of holding to one set of standards in *all* manufacturing processes. Each individual Double Diamond employee knows that his job is just as important as any other to the performance of the final product. That's our idea of the way to make gears. And if gear performance has a bearing on the performance of your products, on the integrity of your trade mark, we'd like to do business with you.

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TRADE MARK
GEARS

Made by

AUTOMOTIVE GEAR WORKS, INC.
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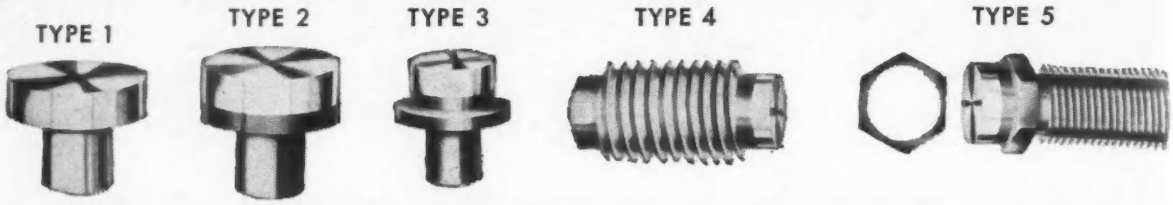
FOR AUTOMOTIVE, FARM EQUIPMENT AND GENERAL INDUSTRIAL APPLICATIONS



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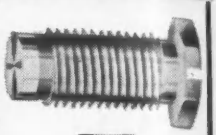

TYPE 6

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These Basic Contacts Solve Nine Problems Out of Ten

You can make the buying of electrical contacts a simple matter—a relatively inexpensive one, too.

Mallory has standardized production on eight basic contact types—contacts that experience has shown will meet 90% of all application needs—contacts that are available in a large variety of sizes. You can get them without delay or trouble—*without the expense of extra tooling.*

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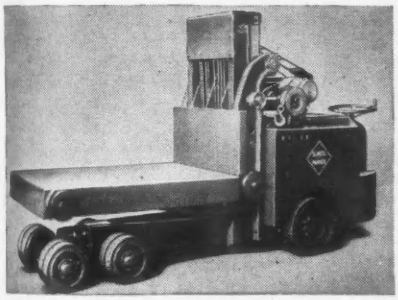
New Production Equipment

(*Continued from page* 170)

eign molders, production of the larger jobs is just getting under way. The 32-oz machine incorporates all the features of the standard Lester line—but on a larger scale. The injection pressure at the end of the plunger is 27,000 psi but the makers claim that even this force is easily held in check by a normal mold locking pressure of 600 tons, all of which is carried by four metal-to-metal columns. The one-piece, cast steel frame of the 32-oz job has a cross-sectional area of 240 sq in.—the equivalent of four round steel bars, each 8¾ in. in diameter. Platens of 29½ in. by 40 in. area are standard and the maximum space between them is 30 in. The vertical injection cylinder, die height adjusting screw with area equivalent to die area, automatic ejection and separate control of both injection speed and pressure are also features of the new Lester line.

ONE of the most powerful industrial trucks ever built for handling forging and metals-stamping dies is now in production at the Elwell-Parker Electric Co., Cleveland, Ohio. It is rated at 25 net tons capacity.

In changing a die with the new power truck the platform, capable of supporting a 25-ton load, is elevated to the level of the press bed. Cables



Elwell-Parker 25-ton truck

wound on power-operated reels on the left and right sides of the truck pass under pulleys on the truck's upright columns and are hooked together at the far end of the die. When the cables are reeled in, the die slides off the bed onto the platform. In replacing a die the action is virtually the same, except that the cables are passed under pulleys at the forward end of the platform and are then brought back and hooked behind the near end of the die. Operating the reels causes the die to slide forward off the platform and onto the press. One man, the truck's operator, removes a die after it has been unbolted from the press, or replaces it on the press preparatory to securing it in place.

SEVERAL pieces of unusual equipment are being demonstrated at the Micromatic Hone Corp., Detroit. One of the most striking is a six-spindle rough-honing machine now doing an experimental production run on six-cylinder blocks immediately following boring. Feature of this machine is the new Hydro-Size control of hone adjustment. In addition to adjustment of hones automatically, each of the tools is fitted with an air gaging head which registers a light on a six-station panel. As the lights go on the operator knows that one after another the individual bores have been finished. As soon as all six bores have been honed to size, the machine stops, retracts the heads and is ready for the next cycle. Sizing of bores for all six cylinders is held within 0.0005 in. variation.

Another of the new machines is a two-spindle vertical Micromatic honer for connecting rod big end finishing. It is fitted with an indexing table and holds two rods in each fixture, thus

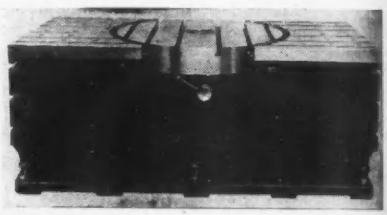
(*Turn to page* 250, *please*)

permitting the honing of two pieces at a time. The machine is so arranged that one spindle does the roughing while the second finishes. Major feature is the adoption of the Micromatic Micro-Size mechanism for this type of machine and the utilization of a new electronic circuit. Speed and accuracy are said to be quite exceptional.

The third machine exemplifies a unique hydraulic ram design which is offered for the first time. It is capable of extremely rapid changes in direction of stroke and has been adapted for the honing of bearing races directly from the rough hardened state, eliminating grinding.

DESIGNED and built to support heavy workpieces without deflection the Model 700 indexing table, manufactured by the Kaukauna Machine Corp., Kaukauna, Wis. for use with its series 125 portable horizontal drilling and tapping machines, is being adapted for use with other types of machine tools. It is also suited for inspection or layout work because of its flexibility and rigidity.

The main bed is of heavy cast iron construction, with T-slots provided in



Kankauna indexing table

the top and at each end for clamping purposes. Thus work can be held in either the horizontal or vertical plane. It is also possible to make a set-up on one end of the table while work is being completed at the other end. A 36-in. diameter indexing platen, also of heavy cast iron construction, manually operated and which can be locked in any position, is in the center of the main bed, supported by an extra capacity ball thrust bearing. A hardened steel plunger and hardened steel bushings are said to assure positive indexing positions. T-slots in the platen are provided for workpiece clamping, and two shoes clamp the platen in position. The overall dimensions of the Kaukauna Model 700 Indexing Table are 72 in. long by 36¼ in. wide, and standing at a height of 29 in.

DESIGNED primarily for drilling and tapping large copper anodes to receive hanging hooks, an improved horizontal combination drilling and tapping machine has been developed by the Cleveland Tapping Machine Co., Hartville, Ohio. This machine, the manufacturer states, incorporates features which make it suitable for a wide variety of applications in drilling and tapping long and irregular work-pieces.

(*Turn to page* 252, *please*)

HOW MUCH and HOW MANY ?

Are Basic Questions in

POWDER METALLURGY

On the basis of "How Much?" metal powder parts from Moraine have replaced parts produced by conventional methods in scores of applications. They have effected substantial savings in cost through the elimination of secondary machining operations, and provided the fine finish and close practical tolerances required by the customer.

Before costs can be determined, however, another question must be answered: "How Many?" Production by powder metallurgy is economical mainly in large, continuing runs. It does not lend itself to job-lot orders, but requires good volume to justify the cost of tooling and setup.

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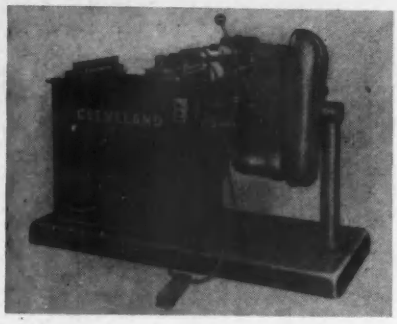
MORAINE PRODUCTS DIVISION OF **GENERAL MOTORS**

DAYTON, OHIO

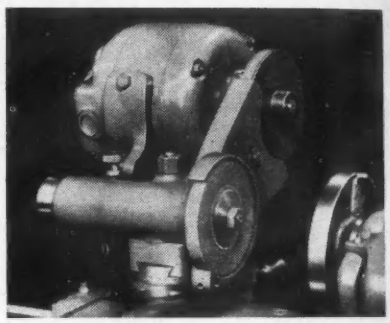


New horizontal drilling and tapping machine made by Cleveland Tapping Machine Co.

A hand control indexes the head for consecutively drilling and tapping; and the depth of hole and withdrawal of the tool are automatically controlled. A three-position indexing head can also be furnished to drill, countersink and tap the work-piece with one chucking. An air-operated vise for holding the work-piece is standard equipment. It can be mounted on a special table which functions as an air-operated cross-slide, positioning the work so that it may be drilled and tapped at a number of pre-determined points. A work rest may be placed on the ways or on brackets fastened to the end of the column to provide additional support for long pieces. The machine is powered by a one-hp reversing motor, and will drill and tap holes up to 0.5 in., National Coarse Thread, in mild steel.

A POWERFUL electric grinding attachment for use on lathes and other machine tools has been developed by the South Bend Lathe Works, 119 E. Madison St., South Bend 22, Ind. Designed primarily for precision external grinding, it is equipped with a 4 in. by ½ in. grinding wheel which is driven by a constant-speed, continuous-duty ¼ hp motor. This permits taking heavier sustained cuts than would be practical with a universal type motor of the same rated horsepower. Available with frame sizes to fit the various sizes of South Bend lathes, this grinding attachment can be adapted to other makes of lathes, milling machines, shapers, planers, etc.

The grinding wheel spindle runs on pre-lubricated sealed precision ball bearings which require no adjustment



South Bend electric grinding attachment

or additional lubrication. Effectively protected from abrasive grinding wheel dust, the sealed bearings are said to retain their precision indefinitely. Tension adjustment is provided for the V-belt which connects the motor with the grinding wheel spindle. Both the grinding wheel and the V-belt are enclosed in a single guard.

Spring stops for grinding straight and spiral fluted reamers and cutters, diamond dressers for truing the grinding wheel, and holding fixtures for the dressers can be furnished for use with this grinding attachment. Grinding wheels are available in several grades for grinding various materials including tungsten carbide, tool steel, machine steel, cast iron, brass or bronze, aluminum, Bakelite, hard rubber, and soft rubber. Special cup wheels are supplied for reamer and cutter grinding.

MURCHEY MACHINE AND TOOL CO., Detroit, Mich., is introducing a line of die heads that feature quick and simple removal and replacement of chasers and chaser holding blocks, usually without removing the tool from the machine. Also, the operator is able

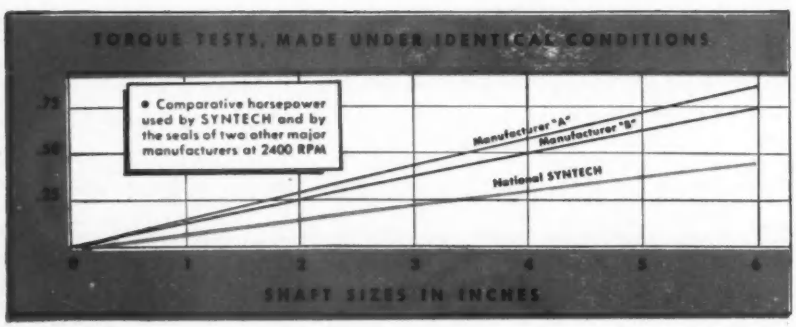
(*Turn to page* 256, *please*)

Syntech* the New National Oil Seal which doubles seal life, cuts power loss, maintains zero leakage

THE revolutionary new sealing member of synthetic rubber in these new National SYNTECH Oil Seals insures optimum sealing results with marked reduction in power consumption (see Chart below).

Dynamometer and road tests give positive proof that SYNTECH'S safety factors on speed, runout, abrasion and wear far surpass any other seal tested. These same tests show conclusively that National SYNTECHS perform at zero leakage over periods up to 10 times the life of a normal application.

Write today to National for more information and samples of the great new National SYNTECH Oil Seal.

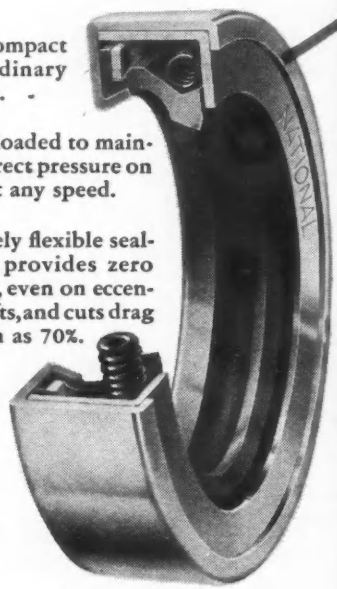


* **SYNTECH** (trademark registered) is an entirely new oil seal which utilizes a special National-developed, synthetic-rubber sealing member.

1 More compact than ordinary oil seals.

2 Spring-loaded to maintain correct pressure on shafts at any speed.

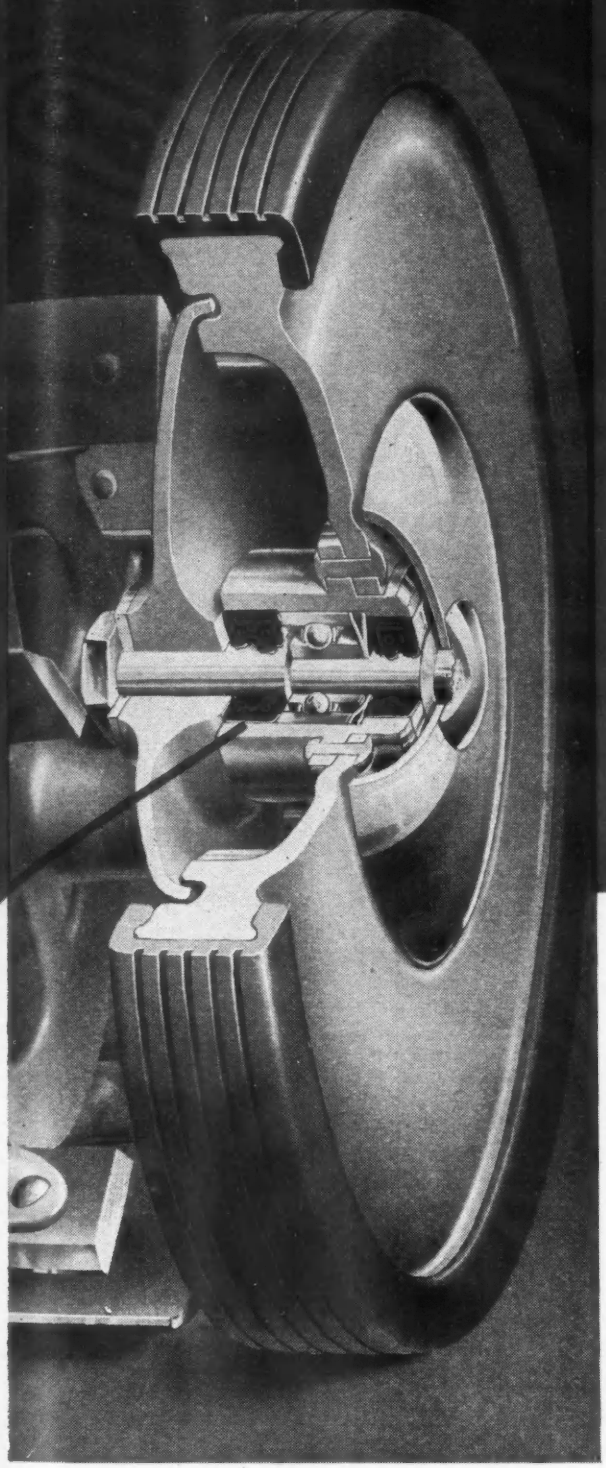
3 Extremely flexible sealing lip provides zero leakage, even on eccentric shafts, and cuts drag as much as 70%.



SYNTECH is made of synthetic rubber compounded to achieve high flexibility and low coefficient of friction.

Design of sealing lip provides limited shaft contact.

This thin section assures maximum flexibility of the sealing member.



Syntech Seals

reduce drag 70%, give 100% longer life at zero leakage in this lawn mower application...

The push resistance of lawn mowers is greatly reduced by use of friction-free bearings. In order to make their use practical, oil seals are required.

Exhaustive tests were held and ultimately four prominent manufacturers turned to National SYNTECH Oil Seals. The installation of FOUR SYNTECHS provided a 100% lubricant seal for the estimated life of the mower, without adding any noticeable drag.

Whether for lawn mowers or battleships—wherever shafts turn—you'll find the new National SYNTECH Oil Seal an outstanding improvement over the ordinary types. Let National engineers assist in solving your bearing protection problems. The details of your problem will be kept in strictest confidence.

NATIONAL MOTOR BEARING COMPANY, INC.

General Offices: Redwood City, California
Plants: Redwood City and Los Angeles, Calif.; Van Wert, Ohio

●

CALL IN A NATIONAL ENGINEER FOR RECOMMENDATIONS

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PHILADELPHIA
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Phone: Bell-Walnut 2-6997

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Room 1026 Fisher Bldg., Detroit 2
Phone: Trinity 16363

NEW YORK CITY
122 East 42nd St., New York City 17
Phone: Lexington 2-8260

MILWAUKEE
1717 E. Kane Place, Milwaukee 2
Phone: Lakeside 2838

HOUSTON
1 Main St., Houston 2, Texas
Phone: Preston 9862

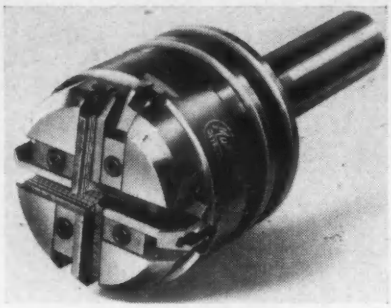
SPRINGFIELD
124 State St., Springfield 3, Mass.
Phone: Springfield 2-1881

KANSAS CITY
1823 Walnut, Kansas City 8, Mo.
Phone: Harrison 6637

CLEVELAND
210 Heights Rockefeller Bldg., Cleveland 18
Phone: Yellowstone 2720

NATIONAL
OIL AND FLUID SEALS

WHEREVER SHAFTS MOVE, THERE'S A NATIONAL SEAL TO RETAIN THE LUBRICANT



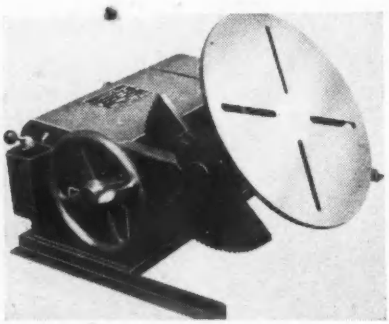
Murchey Type TRB die head

to replace blocks and chasers previously set to exact location in a micrometer setting fixture. Because of this, one die head with extra chasers and blocks takes the place of two or more complete setups.

These die heads are furnished in revolving and stationary type with chasers and holding blocks interchangeable. Shown here is the Type "TRB," a rotating yoke operated tool for use on automatic screw machines, drill presses, or any machine where the tool revolves.

With these Murchey tangent chaser die heads, chasers of a given pitch may be used to cut any size within the range of the head. All parts are hardened and ground.

RANSOME MACHINERY CO., Dunellen, N. J., has placed on the market a power-operated bench model positioner for work weighing 100 lb or less. Built to handle small units, the Model 1-P



Ransome Model 1-P positioner

facilitates welding, assembling, repairing, grinding, hard surfacing, and similar operations for positioning the work to the best advantage for the operator. Work may be tilted to 135 deg and locks in any position at any degree of tilt. It may also be revolved 360 deg by a ⅛ hp single-phase, reversible motor. A disengaging clutch permits free wheeling when desired. Lever-operated vari-drive pulley permits a speed range from .21 to 5 rpm.

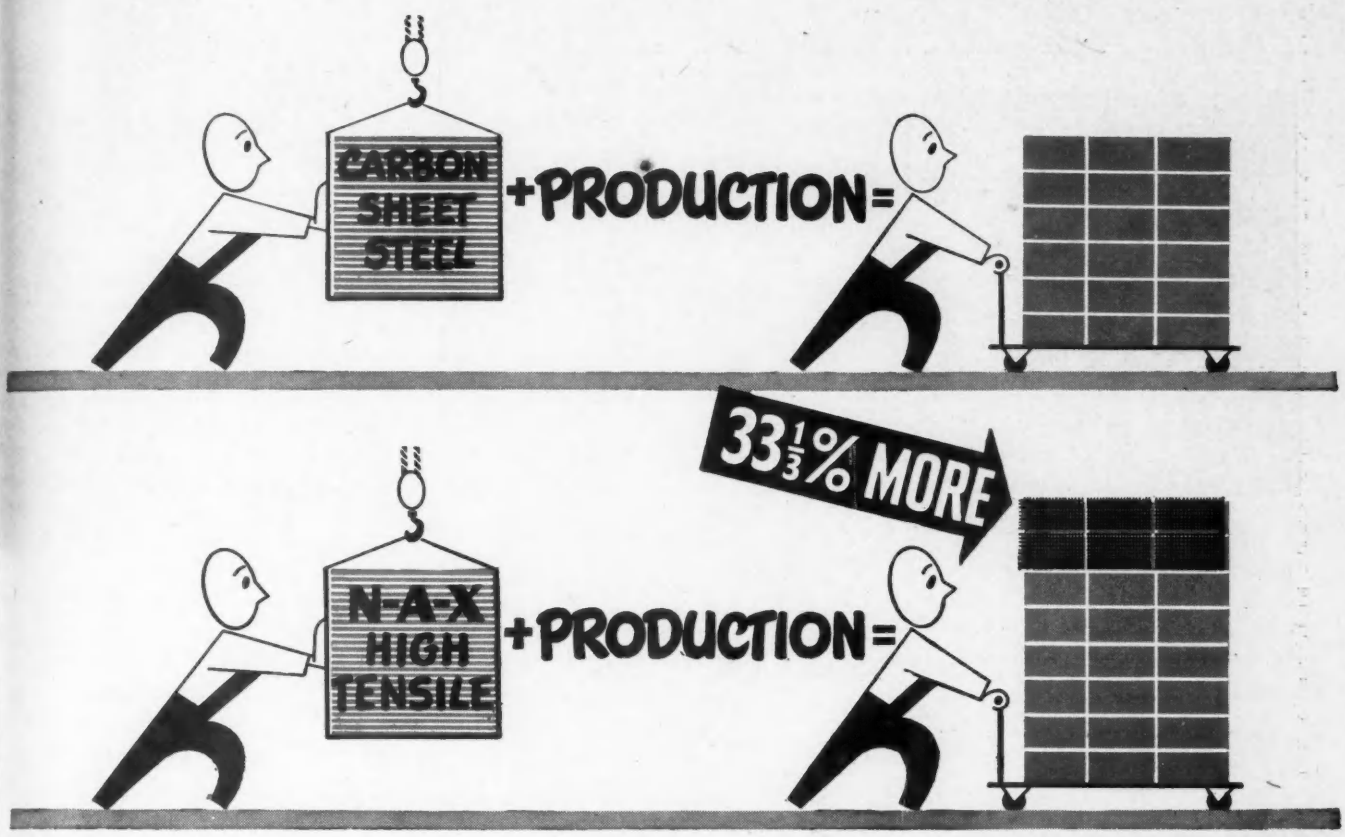
OPTIMUS EQUIPMENT CO., 269 Church St., Matawan, N. J., has brought out a new screw-drum type machine that can be used for washing and drying metal parts, rinsing and drying them, or any part of these operations.

(*Turn to page* 258, *please*)

THE NEW ARITHMETIC IN STEEL

In production per ton—

1 ton N-A-X High-Tensile = 1⅓ tons Carbon Sheet Steel



THE new arithmetic in steel is as simple, understandable—and as well worth remembering—as the multiplication tables.

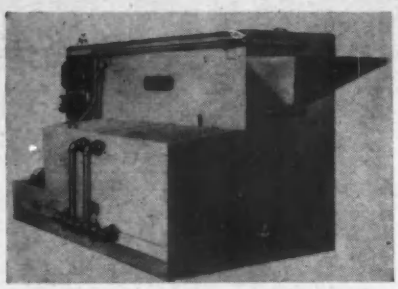
N-A-X HIGH-TENSILE permits the use of lighter sections—as much as 25% lighter. Less steel is used per unit; more units are produced per ton. Yet finished products actually are stronger and more durable—thanks to the greater strength and toughness, the greater resistance to fatigue and corrosion, of N-A-X HIGH-TENSILE steel.

N-A-X HIGH-TENSILE also has excellent weldability, and can be cold-formed and deep-drawn to exceptional degrees for a high-strength steel.

The tremendous demand for N-A-X HIGH-TENSILE makes it impossible right now to promise normal delivery on new orders. However, our engineers will be glad to show you how to make the most of the new arithmetic in steel in figuring your plans for the future.

MAKE A TON OF SHEET STEEL GO FARTHER
Specify—
N-A-X
HIGH-TENSILE STEEL

GREAT LAKES STEEL CORPORATION
N-A-X ALLOY DIVISION • DETROIT 18, MICHIGAN
UNIT OF NATIONAL STEEL CORPORATION



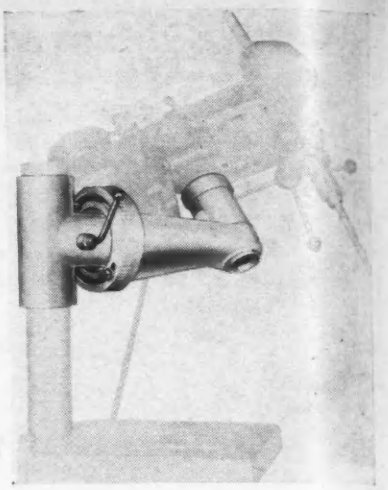
Optimus screw-drum type machine

The machine can also be adapted for a wash-drain, rinse-drain, cold or hot air dry sequence, or for pickling operations. It is particularly designed to handle difficult rinsing and drying jobs involving screw machine or small stamped parts.

The dryer end is completely closed to avoid air loss. The air stream passes through a heater and blower which provides for either hot or cold air blast system.

All parts of the machine are said to be readily accessible for lubrication, maintenance or alterations. Centralized lubrication may be provided.

EMPIRE FOUNDRY & MACHINE CORP., Ashland, Ky., has developed an All Angle radial arm to be mounted on



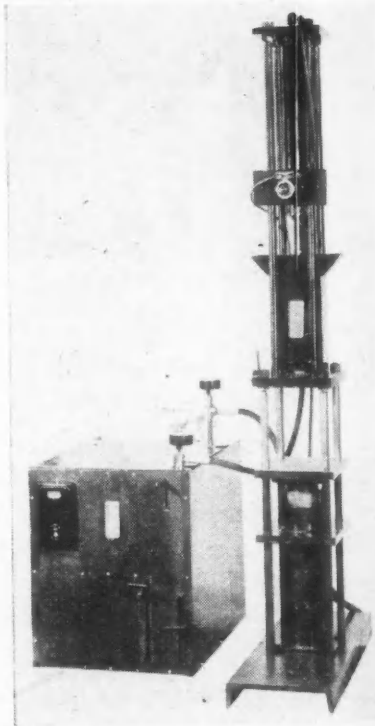
All Angle radial arm for drill presses

standard 2-, 2¼-, 2½- or 2¾-in. column drill presses. It eliminates the necessity of a tilting or universal table for drilling holes at any desired angle and most any radius. The arm increases chuck-to-column capacity by 16 in., and an auxiliary column increases chuck-to-base capacity five in.

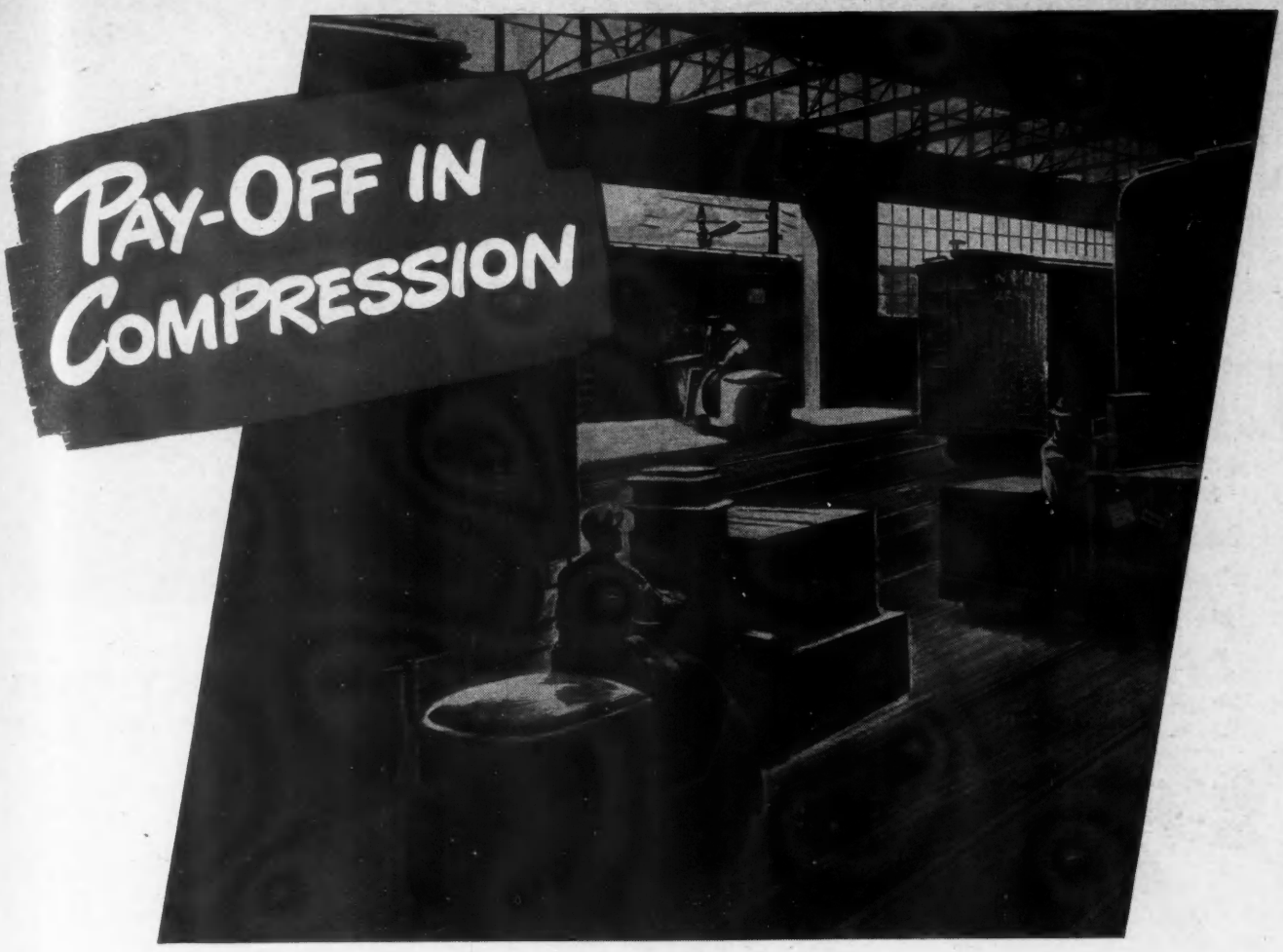
The radial arm is clamped to the

(*Turn to page* 260, *please*)

Munton Hydraulic Injection Molding Press



This motorized hydraulic injection molding press, made by Munton Mfg. Co., 9400 Belmont Ave., Franklin Pk., Ill., has a three-oz capacity. Injection pressure is 12,000 psi. Mold sealing or clamping pressure is 50,000 lb. The operating cycle is 30 sec. Maximum opening for molds is 12 in.



● A repair shop writes: "We take care of 30 Lift Trucks with four-cylinder engines. These machines run from 16 to 20 hours a day. We estimate that one of these engines, if installed in a car, would cover from 100,000 to 125,000 miles per year.

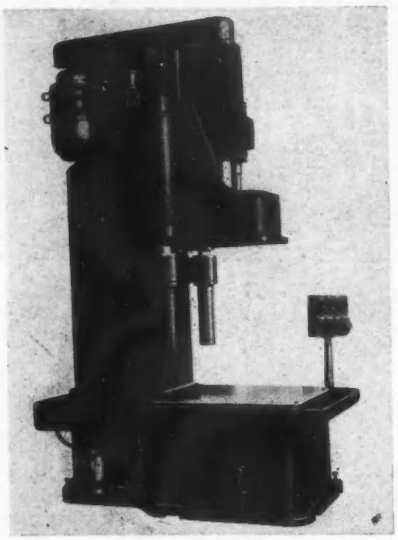
"For two years we have been using Pedrick piston rings for all replacement jobs. Last week we made a compression test on one of our *old* machines—overhauled five months ago. *Not one pound was lost through the Pedrick rings.* Yet a *new* machine, with other rings, in operation for four months, lost eight to ten pounds!"

This ability of Pedrick rings to maintain a seal in the cylinder for long periods will help your new engines to deliver longer, trouble-free service and help your dealers out in the field to do better, more efficient reconditioning work. Send for information on Pedrick's exclusive "Heat-Shaping" process. *Only* PEDRICK makes "Heat-Shaped" piston rings. WILKENING MANUFACTURING CO., Philadelphia 42, Pa. *In Canada:* Wilkening Manufacturing Co. (Canada) Ltd., Toronto.

Pedrick
precisioneered
PISTON RINGS

base collar by bolts through a degree table graduated through 45 deg right to 45 deg left. It permits adjustment of drill head to any desired drilling angle. The base collar is equipped with a coordinate clamp lock with ball handle that releases or tightens two clamping wedges simultaneously. It simplifies raising or lowering drill head and permits swinging drill head and radial arm. The auxiliary column is clamped by two set screws which tighten flush with surface.

ROBBINS ENGINEERING Co., 318 Midland Ave., Detroit 3, Mich., announces a new automatic drilling machine, the Robbins No. 3 Drillmatic. This machine is designed and built as a standard machine tool for special purpose adaptations at lower cost. Tooling heads are mounted on the machine saddle by means of standard locating and hold-down holes. Any number of spindles may be included in the head and all are driven by the machine spindle. When operations change the head can be removed and a new one mounted.



Robbins No. 3 Drillmatic drilling machine

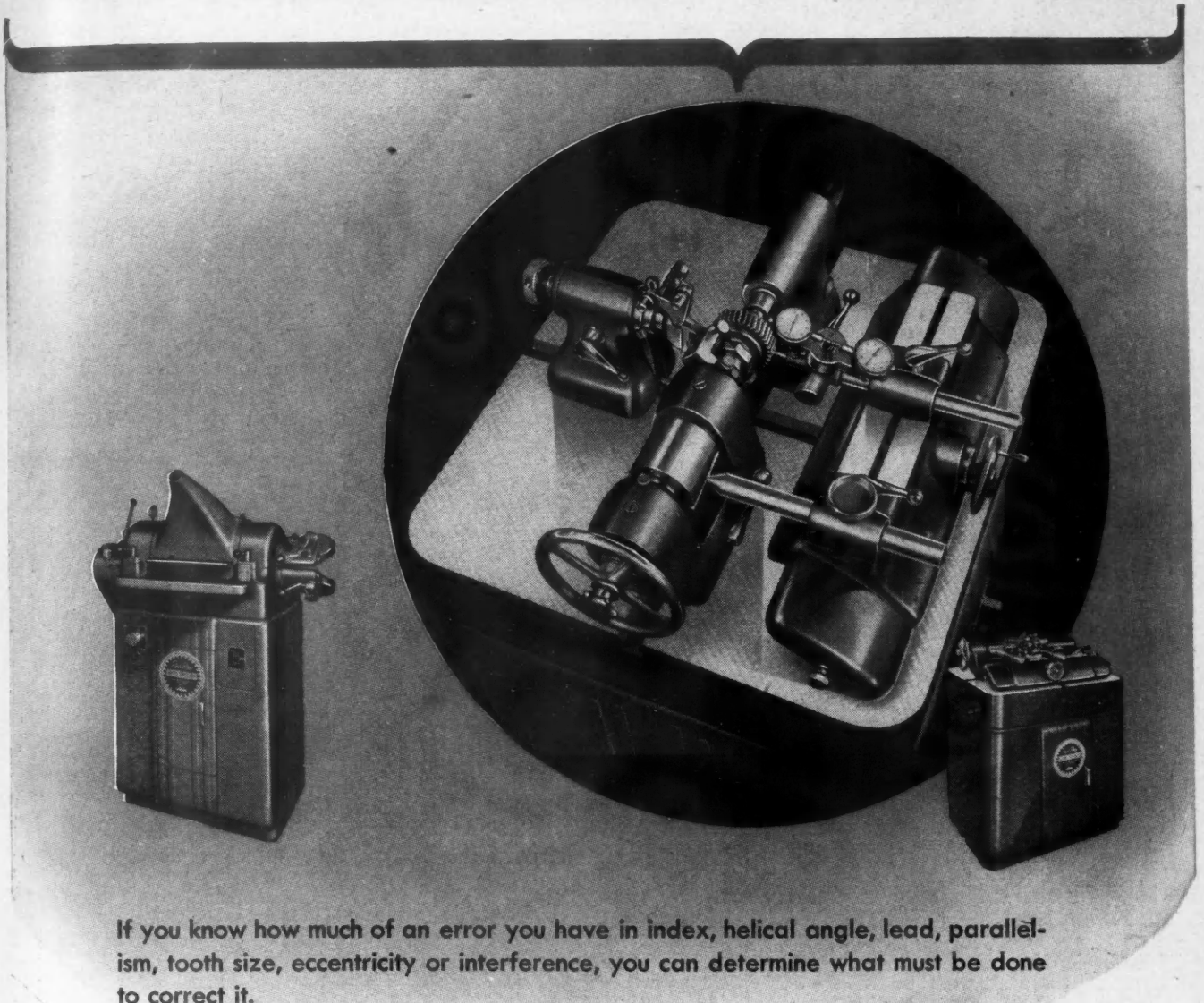
The saddle is operated by a ram from the hydraulic unit mounted on the machine column above the saddle. Thus the hydraulic pressure is directly over the work, eliminating friction on the guide bars due to tool thrust.

The hydraulic power for the Robbins No. 3 Drillmatic is supplied from a self-contained unit mounted at the top of the machine column. The hydraulic pump, pump control mechanism, oil sump and hydraulic cylinder are fully enclosed. All connections are manifolded inside the unit and there is no outside piping or valves.

THE ADAPTATION of a pushing device to a standard fork truck is a def-

(*Turn to page 262, please*)

FIRST MEASURE YOUR GEAR ERRORS AND GEAR NOISE THEN CORRECT THEM



If you know how much of an error you have in index, helical angle, lead, parallelism, tooth size, eccentricity or interference, you can determine what must be done to correct it.

If there is apt to be objectionable noises in a gear train, find out before those gears are assembled just how much noise they will make in operation. Then you can take the necessary steps to correct for noise without paying unnecessarily for both assembly and disassembly.

The Red Ring Universal Gear Checker and Gear Sound Tester will permit you to accurately evaluate gear errors and gear noises. The Sound Tester will, by the character of the sound produced, indicate its cause.

Write for descriptive folders on these machines.

2525

RED RING PRODUCTS

NATIONAL BROACH AND MACHINE CO.

5600 ST. JEAN • DETROIT 13, MICHIGAN

SPECIALISTS ON SPUR AND HELICAL INVOLUTE GEAR PRACTICE • ORIGINATORS OF ROTARY SHAVING AND ELLIPTOID TOOTH FORMS

Pusher device mounted on Clark Carloader fork truck

inite advance in mechanical handling. The pusher is said to be practical for nearly any type of load. Retainers are used to hold the pallet in the job illustrated, but other types of loads may be deposited with the pallet if desired. The pusher is also used with self-contained loads which do not require a pallet.

The pusher device itself has a maximum stroke of 52 in., a thrust capacity of 4,000 lb, and is now available on the Clark Carloader, Utilitruc and other models as the demand develops. This new device is a product of Clark Tructractor Division of Clark Equipment Co., Battle Creek, Mich.

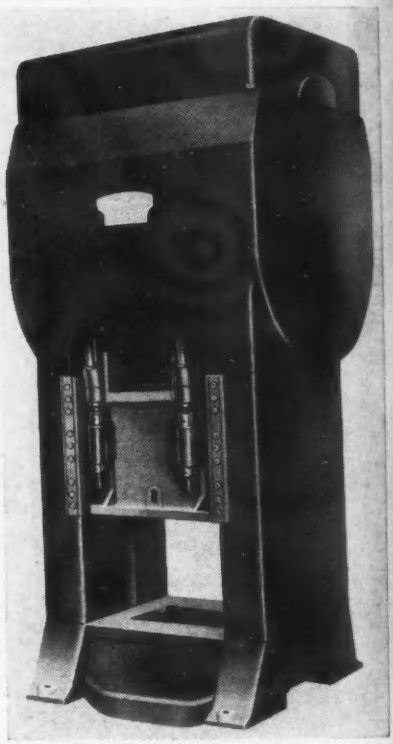
THE NEWMATIC CONTROLLER, which operates as the electrical counterpart of the automobile automatic gearshift, has been adopted as standard equipment by its designers, Automatic Transportation Co., 149 W. 87 St., Chicago 20, Ill. It will be installed on all the company's 1947 trucks. The new control system made its first appearance on Automatic's new Skylift fork truck, the first of the company's 1947 line, which was introduced in January.

The controller provides automatically timed sequence of four speeds in forward and reverse. It is said to make jerky movement impossible—in starting, reversing or accelerating—thus eliminating tire slippage and minimizing spillage of loads. It reduces the peak electric current surges by two-thirds.

The Newmatic enables the operator of a truck to select any one of the four forward or reverse speeds at will; regardless of the speed selected, how-

(*Turn to page* 264, *please*)

Double-Action Toggle Press



This single-point, double-action toggle press, manufactured by the Cleveland Punch & Shear Works Co., 3917 St. Clair Ave., Cleveland 14, Ohio, has all gears enclosed in the box-type crown, together with the drive unit. The press is equipped with an electrically-controlled, air-operated friction clutch and the top cover can easily be removed should it be necessary to make any repairs. While the machine illustrated has a 28-in. stroke, 6-in. adjustment, 500 tons capacity for inner slide, and 300 tons capacity for outer slide, this type of press can be furnished in sizes and capacities to suit requirements and with single connection, as shown in the illustration, or with two connections as desired.

Magnet cures headache

Emilia Bojanowski
J & H Associate,
Plant No. 3

Extra values through

JACK & HEINTZ

Mass Precision

Magnetizing of Magnetos usually takes five operations: (1) assemble magneto, (2) adjust bearings, (3) disassemble magneto, (4) magnetize rotor, (5) reassemble magneto. Operations (3) and (5) were production headaches. These were eliminated by Jack & Heintz engineers who developed a giant magnetizing device by which the rotors are magnetized through the magneto frame . . . *after* assembly. Result: higher quality and faster production of urgently-needed Eisemann magnetos.

Achievements of Jack & Heintz *mass precision* such as this are creating extra values in magnetos, electric motors, bearings refrigeration compressors and aircraft accessories *today* and in revolutionary developments for *tomorrow.*

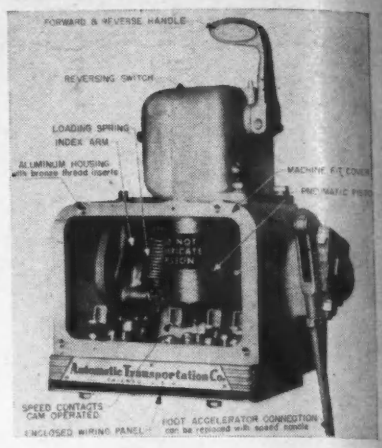
JACK & HEINTZ PRECISION INDUSTRIES, INC., ***Cleveland 1, Ohio***

ever, the controller starts the truck in low speed and passes automatically through the sequence to the faster speed selected.

This automatic sequence is timed at one second for passage through all four speeds—or one-third of a second between any two speeds. So that the automatic sequence cannot be accidentally disturbed, timing has been made tamper-proof and non-adjustable except by replacing the air jet within the pneumatic cylinder.

In addition to the pneumatic "master controller," which handles only small and constant currents to actuate the contactors, the system includes a newly designed reversing switch and contactor panel.

All three elements are electrically interlocked but mechanically independent so that they may be positioned in any convenient arrangement on the truck. The reversing switch is mechanically interlocked with the seat or platform — depending upon the type of truck—so that "dead man control" shuts off all power if the operator leaves his position. The Newmatic is a self-contained unit, adaptable to any type and size of electric truck and to any type of controls—foot accelerator, hand lever or combination. It will be used on the entire Automatic line.



Newmatic controller

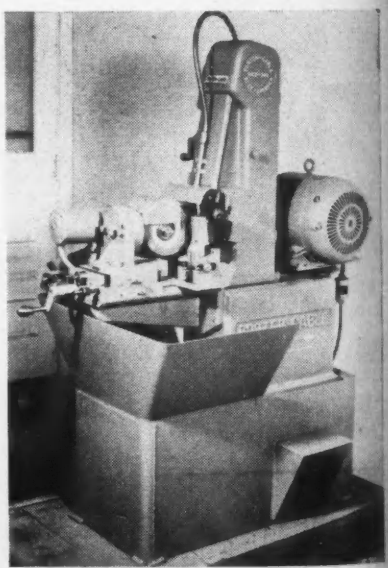
A CENTERLESS wet belt grinder is the latest addition to the line of wet belt machines manufactured by Porter-Cable Machine Co., Syracuse, N. Y.

The following advantages are claimed for this new type grinder which employs an endless abrasive belt operating over a resilient contact roll: Since the abrasive belt and the contact roll are balanced, the two cut uniformly. The work is done by the abrasive belt; therefore, the contact roll gets little wear. This roll, which backs up the abrasive belt, is said to remain flat across and square at the corners. Its diameter remains constant.

A swivel head is provided and when necessary the contact roll is trued up on the machine itself and in its normal position.

The resiliency of the contact roll is said to eliminate chatter. A soft resilient roll follows a shape and cleans up irregular stock. A semi-hard roll is recommended for accurate grinding.

This grinder is adapted for thru work, short pieces, ¾ in. to 2 ft lengths and longer, with proper supports. Diameters handled range from 3/32 in. to 2¼ in.



Porter-Cable centerless wet belt grinder

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USTRIES